

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	174	564/462	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:05
L2	1	l1 and voglibose	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:05
L3	626	536/1.11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:05
L4	0	l3 and voglibose	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:06
L5	1862	536/124	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:06
L6	0	l5 and voglibose	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:06
L7	809	voglibose	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:06
L8	792	l7 and (process or method or making or production or synth\$)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:07
L9	2	l8 and dihydroxyamin\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:08
L10	52	l8 and \$propanediol	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2006/08/08 11:08

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 8 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAPLUS and  
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NEWS 14 JUL 14 FSTA enhanced with Japanese patents  
NEWS 15 JUL 19 Coverage of Research Disclosure reinstated in DWPI  
  
NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
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FILE 'HOME' ENTERED AT 14:53:41 ON 08 AUG 2006

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:53:51 ON 08 AUG 2006

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DICTIONARY FILE UPDATES: 7 AUG 2006 HIGHEST RN 899508-12-4

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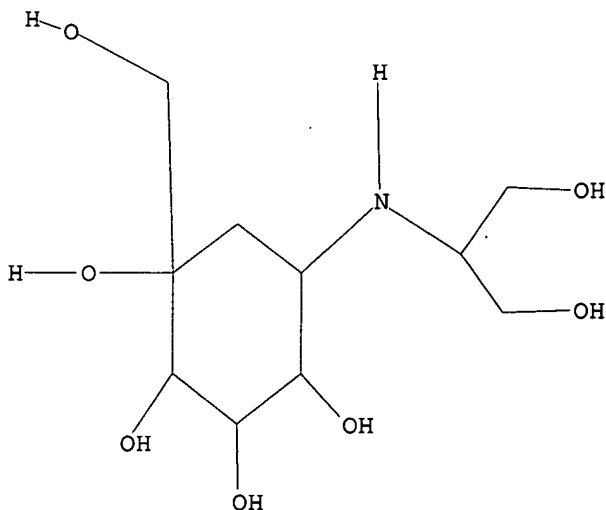
Uploading C:\Program Files\Stnexp\Queries\10509059.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 14:54:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 3 TO 163  
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

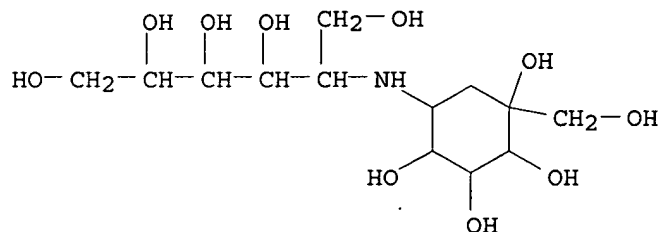
=> s l1 sss full  
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FULL SCREEN SEARCH COMPLETED - 49 TO ITERATE

100.0% PROCESSED 49 ITERATIONS 6 ANSWERS  
SEARCH TIME: 00.00.01

L3 6 SEA SSS FUL L1

=> d scan

L3 6 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN D-epi-Inositol, 3,4-dideoxy-2-C-(hydroxymethyl)-4-[[2,3,4,5-tetrahydroxy-1-(hydroxymethyl)pentyl]amino]- (9CI)  
MF C13 H27 N O10



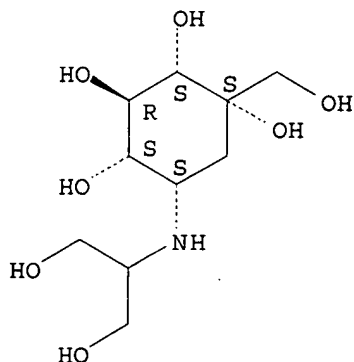
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 6 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN  
IN Galactosidase,  $\alpha$ -, mixt. with 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)-D-epi-inositol (9CI)  
MF C10 H21 N O7 . Unspecified  
CI MXS

CM 1

Absolute stereochemistry.



\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

167.38

167.59

FILE 'CAPLUS' ENTERED AT 14:55:04 ON 08 AUG 2006

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FILE LAST UPDATED: 7 Aug 2006 (20060807/ED)

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=> s l3 and voglibose

209 L3

187 VOGLIBOSE

L4 158 L3 AND VOGLIBOSE

=> s l4 and (method or process or production or synthe? or making)

3155820 METHOD

1290013 METHODS

4082549 METHOD

(METHOD OR METHODS)

2281447 PROCESS

1548546 PROCESSES

3406581 PROCESS

(PROCESS OR PROCESSES)

602927 PRODUCTION

3190 PRODUCTIONS

605261 PRODUCTION

(PRODUCTION OR PRODUCTIONS)

952648 PRODN

530 PRODNS

952828 PRODN

(PRODN OR PRODNS)

1301253 PRODUCTION

(PRODUCTION OR PRODN)

2094137 SYNTHE?

284834 MAKING

33 MAKINGS

284861 MAKING

(MAKING OR MAKINGS)

L5 55 L4 AND (METHOD OR PROCESS OR PRODUCTION OR SYNTHESIS OR MAKING)

=> s 15 and oxid?

2913888 OXID?

L6 13 L5 AND OXID?

=> dis 16 1-13 bib abs hitstr

L6 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:367143 CAPLUS

DN 144:412493

TI Rhodanine derivatives as PPAR receptor modulators and their preparation, pharmaceutical compositions and use for treatment and prophylaxis of various diseases

IN Sarshar, Sepehr; Marappan, Subramanian

PA Auspex Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DT Patent

LA English

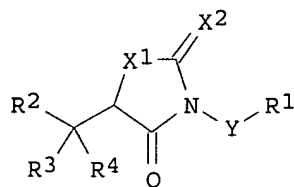
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006041921	A2	20060420	WO 2005-US35832	20051004
	W:				
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	RW:				
	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

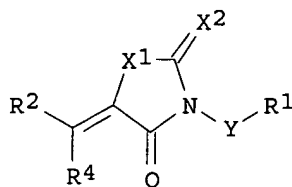
PRAI US 2004-616574P P 20041005

OS MARPAT 144:412493

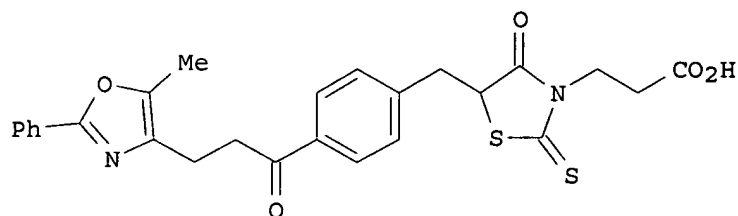
GI



I



II



III

AB Processes for the preparation of compds. of formulas I and II are

described. These compds. can be used as PPAR modulators and for the treatment and/or management of cancer, inflammation, cellular differentiation and proliferation, wound healing, metabolism of lipids and carbohydrates, obesity, diabetes, and energy homeostasis. Compds. of formula I and II wherein X1 and X2 are independently O, S, or NH; Y is (un)substituted C1-10 alkyl; R1 is (un)substituted C5-11 oxocycloalkenyl, (R9CO)(R10CO)CH, or (un)substituted dioxodioxanyl; R9 and R10 are independently OH, alkoxy, aryloxy, NH2, alkylamino, arylamino, N-aryl-N-alkylamino, -NHNH2, alkylhydrazino, arylhydrazino, N-aryl-N-alkylamino, NHOH and derivs., alkyl, or aryl; R2 and R3 are independently H, halo, or alkyl; R4 is substituted aryl and heteroaryl; and their pharmaceutically acceptable salts, and prodrugs thereof are claimed. Example compound III was prepared by addition of methylolithium to 4-(diethoxymethyl)benzaldehyde to give the corresponding alc., which was oxidized to give 4-(diethoxymethyl)acetophenone, which underwent acylation with di-Et carbonate; the resulting 2-[4-(diethoxymethyl)benzoyl]acetate underwent alkylation with 4-chloromethyl-5-methyl-2-phenyloxazole followed by decarboxylation to give 4-[3-(5-methyl-2-phenyl-4-oxazolyl)propionyl]benzaldehyde, which underwent condensation with rhodanine-N-propionic acid to give 4-[3-(5-methyl-2-phenyl-4-oxazolyl)propionyl]benzylidene-3-( $\beta$ -carboxyethyl)rhodanine, which underwent hydrogenation to give example compound III. The invention compds. were evaluated for their PPAR- $\gamma$  modulating activity. From the assay, it was determined example compound III exhibited an EC50 0.127  $\mu$ M.

IT 83480-29-9, Voglibose

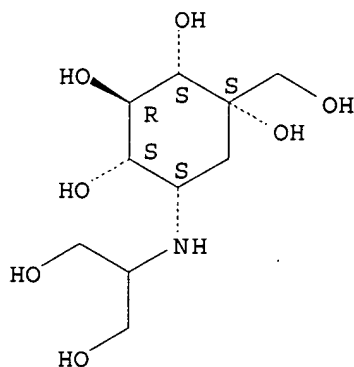
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of rhodanine derivs. as PPAR receptors modulators useful in treatment and prophylaxis of diseases)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:283034 CAPLUS

DN 144:445125

TI Control of plasma glucose with alpha-glucosidase inhibitor attenuates oxidative stress and slows the progression of heart failure in mice

AU Liao, Yulin; Takashima, Seiji; Zhao, Hui; Asano, Yoshihiro; Shintani, Yasunori; Minamino, Tetsuo; Kim, Jiyoong; Fujita, Masashi; Hori, Masatsugu; Kitakaze, Masafumi

CS Department of Cardiovascular Medicine, Osaka University Graduate School of Medicine, Suita, Osaka, 565-0871, Japan

SO Cardiovascular Research (2006), 70(1), 107-116

CODEN: CVREAU; ISSN: 0008-6363

PB Elsevier B.V.

DT Journal

LA English

AB It was suggested that reduction in glucose levels contributes to the prolongation of life span of rodents in conjunction with restricted food intake, and hyperglycemia was confirmed as a risk factor for cardiovascular disease (CVD), raising the possibility that better glycemic control could slow the progression of CVD. This study was designed to determine whether impaired glucose tolerance develops during the progression of cardiac hypertrophy and heart failure, and whether tight glycemic control could reduce the severity of heart failure. In male C57BL/6 mice, transverse aortic constriction (TAC) was employed to create cardiac hypertrophy and heart failure. The involvement of NADPH in TAC mice and cardiac myocytes in the neonatal rat was investigated. The random-fed blood plasma glucose concentration was higher in TAC mice, and it was reduced

to

about 100 mg/dL by voglibose (an alpha-glycosidase inhibitor). Four weeks after TAC, both the heart weight/body weight ratio and the lung weight/body weight ratio were lower in the voglibose group than in the TAC group. Echocardiog. and invasive hemodynamic examination showed improvement of left ventricular function in voglibose-treated mice. Voglibose treatment decreased the myocardial expression of an NADPH oxidase subunit (p47phox). Glucose dose-dependently increased both neonatal rat myocyte protein synthesis and the expression of p47phox protein, while apocynin (an NADPH oxidase inhibitor) blocked the enhancement of protein synthesis by high glucose. Improvement of glycemic control through voglibose therapy inhibited cardiac remodeling by decreasing myocardial oxidative stress in mice with cardiac pressure overload.

IT 83480-29-9, Voglibose

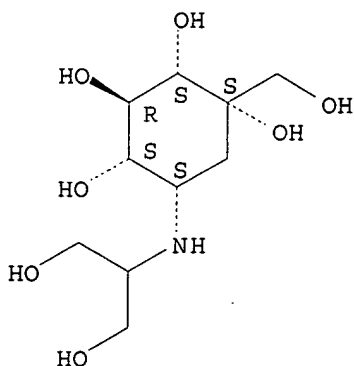
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(glycemic control with voglibose attenuates oxidative stress and slows progression of heart failure)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:472107 CAPLUS

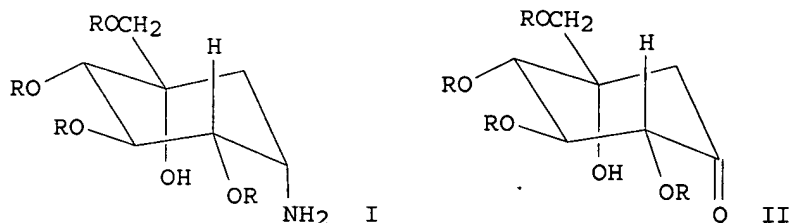
DN 143:26811

TI Process for the preparation of 1,2,3,4-cyclohexanetetrol derivatives as intermediates for preparation of voglibose



IN Khanduri, Chandra Has; Babu, Jayachandra Suresh; Ray, Purna Chandra; Shah,  
 Jigar Bhaskarbhai; Kumar, Yatendra  
 PA Ranbaxy Laboratories Limited, India  
 SO PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005049547	A1	20050602	WO 2004-IB3782	20041118
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	IN 2003-DE1448	A	20031121		
	IN 2004-DE1507	A	20040816		
OS	CASREACT 143:26811; MARPAT 143:26811				
GI					

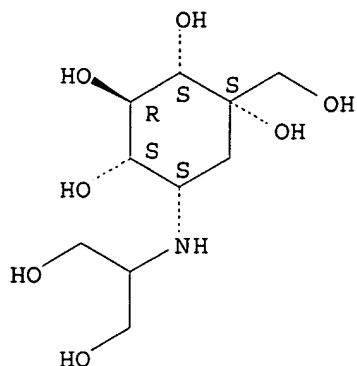


AB The aminocyclohexanetetrol derivs. I (R = H, protective group), intermediates for voglibose, were prepared by reaction of the 2,3,4,5-tetrahydroxycyclohexanone derivs. II with ammonium acetate, ammonium formate or a mixture thereof and one or more reducing agents. Thus, II (R = Bn), prepd from the 6,6-dichloro derivative, underwent reductive amination with ammonium acetate and sodium cyanoborohydride to give I (R = Bn), which reacted with with 1,3-dihydroxyacetone followed by hydrogenolysis to give voglibose.

IT 83480-29-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (process for preparation of 1,2,3,4-cyclohexanetetrol derivs. as intermediates for voglibose)

RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6    ANSWER 4 OF 13    CAPLUS    COPYRIGHT 2006 ACS on STN  
AN    2005:14148    CAPLUS  
DN    142:107413  
TI    Combination therapy for the treatment of dyslipidemia  
IN    Erondy, Ngozi E.; Fong, Tung M.; MacNeil, Douglas J.; Van Der Ploeg,  
      Leonardus H. T.  
PA    Merck & Co., Inc., USA  
SO    PCT Int. Appl., 106 pp.  
      CODEN: PIXXD2  
DT    Patent  
LA    English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005000217	A2	20050106	WO 2004-US17120	20040602
	WO 2005000217	A3	20050407		
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	EP 1635813	A2	20060322	EP 2004-753858	20040602
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	US 2006148721	A1	20060706	US 2005-555194	20051101
PRAI	US 2003-476387P	P	20030606		
	WO 2004-US17120	W	20040602		

OS    MARPAT 142:107413

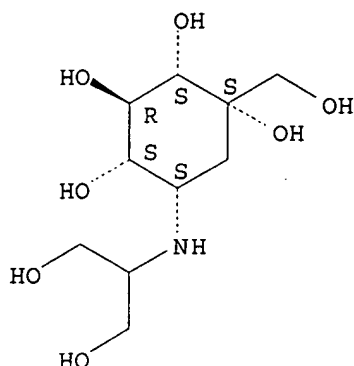
AB    The invention relates to compns. comprising an anti-obesity agent and an anti-dyslipidemic agent useful for the treatment of dyslipidemia, dyslipidemia associated with obesity and dyslipidemia-related disorders. The invention further relates to methods of treating or preventing obesity, and obesity-related disorders, in a subject in need thereof by administering a composition of the present invention. The invention further provides pharmaceutical compns., medicaments, and kits useful in carrying out these methods.

IT    83480-29-9, Voglibose

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(combination therapy for treatment of dyslipidemia)

RN 83480-29-9 CAPLUS  
CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:1124581 CAPLUS  
DN 142:69181  
TI Combination therapy for the treatment of hypertension  
IN Fong, Tung M.; Erondy, Ngozi E.; Macneil, Douglas J.; McIntyre, James H.;  
Van Der Ploeg, Leonardus H. T.  
PA Merck & Co., Inc., USA  
SO PCT Int. Appl., 99 pp.  
CODEN: PIXXD2  
DT Patent.  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004110368	A2	20041223	WO 2004-US17090	20040602
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	EP 1635773	A2	20060322	EP 2004-753832	20040602
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	US 2006160834	A1	20060720	US 2005-559111	20051202
PRAI	US 2003-476390P	P	20030606		
	WO 2004-US17090	W	20040602		
OS	MARPAT 142:69181				
AB	The present invention relates to compns. comprising an anti-obesity agent and an anti-hypertensive agent useful for the treatment of hypertension, hypertension associated with obesity, and hypertension-related disorders. The present invention further relates to methods of treating or preventing obesity, and obesity-related disorders, in a subject in need thereof by administering a composition of the present invention. The present invention further provides for pharmaceutical compns., medicaments, and kits useful in carrying out these methods.				
IT	83480-29-9, Voglibose				

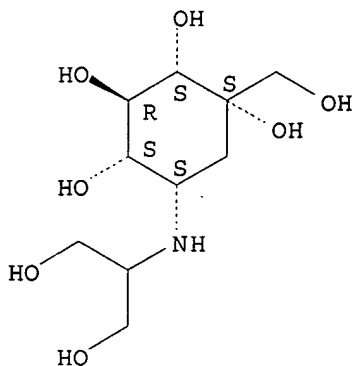
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(combination therapy of hypertension and hypertension-related disorders  
using antiobesity agent and antihypertensive agent and other agents and  
antihypertensive agent)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:777746 CAPLUS

DN 139:277115

TI Process for preparation of voglibose

IN Shogaki, Takeshi; Kakita, Takao; Yagi, Suguru

PA Sawai Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003080561	A1	20031002	WO 2002-JP10687	20021015
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002344083	A1	20031008	AU 2002-344083	20021015
	US 2005165257	A1	20050728	US 2003-509059	20021015
PRAI	JP 2002-88321	A	20020327		
	WO 2002-JP10687	W	20021015		
OS	CASREACT 139:277115; MARPAT 139:277115				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention provides a process by which voglibose

can be safely and easily prepared at a low cost; intermediates favorably usable in the process; and a process for preparation of the intermediates, specifically, inositol derivs. represented by the general formula (I) (wherein Prt is a hydroxyl-protecting group); a process for the preparation of the inositol derivs. which comprises dihydroxyaminating a cyclohexanone compound represented by the general formula (II) (wherein Prt is as defined above) with a dihydroxyaminating agent and a reducing agent; and a process for the preparation of voglibose represented by formula (III) which comprises oxidizing an inositol derivative of the general formula I and deblocking the resulting inositol compound. Voglibose is an  $\alpha$ -glucosidase inhibitor and useful for the treatment of diabetes. Thus, a suspension of 2.0 g Me 6-deoxy-2,3,4-tri-O-benzyl- $\alpha$ -D-xylo-5-hexenopyranoside in a mixture of 60 mL dioxane and 30 mL H<sub>2</sub>O was heated in the presence of 39 mg PdCl<sub>2</sub> at 45° with stirring to give, after workup and crystallization from hexane, 72.4% [2S-(2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5.alp ha. $\beta$ )]-5-hydroxy-2,3,4-tris(benzyloxy)cyclohexanone (IV) which (4.33 g) was dissolved in 90 mL toluene, cooled to -78°, treated dropwise with a THF solution of 1.0 M vinylmagnesium bromide (50 mL), stirred at -78° for 2 h and at room temperature for 1 h, and carefully treated with 100 mL 1 M aqueous HCl solution, to give after workup and silica gel

chromatog.,

a mixture of 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-epi-inositol and 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-myo-inositol (V) in 65.8% yield. V (2.99 g) was dissolved in 15 mL DMSO and 5.43 mL Et<sub>3</sub>N, treated dropwise with a solution of 3.10 g sulfur trioxide-pyridine complex in 15 mL DMSO, stirred at room temperature for 1 h to give, after workup and silica gel chromatog., 83.7% II (Prt = benzyl) which (1.50 g) was stirred with 2-amino-1,3-propanediol in 25 mL dry MeOH at room temperature for 20 h, treated with 742 mg NaBH<sub>4</sub> under ice-cooling, and stirred at room temperature for 16 h

to

give, after workup and silica gel chromatog., 72.6% III (Prt = benzyl) (VI). A solution of 700 mg VI in 30 mL CH<sub>2</sub>Cl<sub>2</sub>/MeOH (4/1) underwent ozonolysis at -78° for .apprx.4 h, treated with 198 mg NaBH<sub>4</sub>, stirred at room temperature for 1 h, and acidified to pH 4 by adding 1 M

aqueous HCl

solution to give, after silica gel chromatog., 85.5% I (Prt = benzyl) which (100 mg) was dissolve din 1.9 mL MeOH, successively treated with 0.1 mL 90% formic acid and 20 mg palladium black, stirred at 60° for 6 h, and suction-filtered to remove the catalyst followed by washing the catalyst with 3 mL MeOH/H<sub>2</sub>O (1/1). Evaporation of the combined solvent from the filtrate and the washing under reduced pressure, column chromatog. purification using Dowex 50WX8 and Amberlite CG-50, and crystallization from

ethanol

gave 65.0% III (voglibose).

IT 83480-29-9P, Voglibose

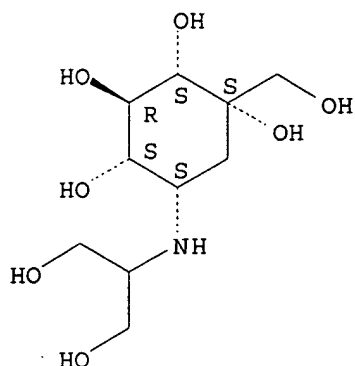
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of voglibose as  $\alpha$ -glucosidase inhibitor for treatment of diabetes in multisteps from Me 6-deoxy-2,3,4-tri-O-benzyl- $\alpha$ -D-xylo-5-hexenopyranoside)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

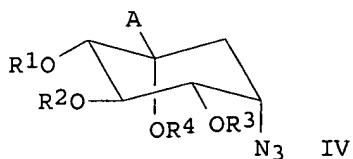
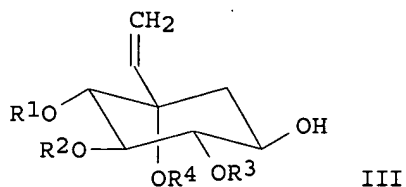
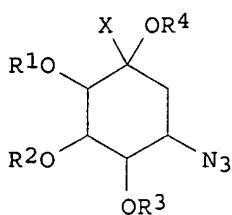
Absolute stereochemistry.



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:386729 CAPLUS  
DN 138:402036  
TI Preparation of valiolumine and its intermediates  
IN Masagaki, Takeshi; Yagi, Takashi; Kakita, Takao  
PA Sawai Pharmaceutical Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003146957	A2	20030521	JP 2001-345259	20011109
PRAI	JP 2001-345259		20011109		
OS	MARPAT 138:402036				
GI					



AB Cyclohexane derivs. I (R1-R4 = H, protective group; X = CH:CH2, CH2OH), useful as intermediates for valiolumine (II), are claimed. Also claimed is a method for preparation of II by (1) azidation of alc. III (R1-R4 = H, protective group), (2) oxidn. of the resulting IV (A = CH:CH2; R1-R4 = same as in III), and (3) reduction of the resulting IV (A = CH2OH; R1-R4 = same as above). Preparation of II from Me 6-deoxy-2,3,4-tris-O-(phenylmethyl)- $\alpha$ -D-xylo-5-hexenopyranoside with 5 steps was shown. Preparation of voglibose from II was also shown.

IT 83480-29-9P, Voglibose

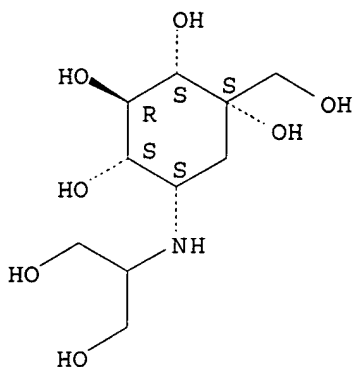
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(preparation of valiolumine as intermediate for voglibose from deoxyethenylmyoinositols)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:888532 CAPLUS

DN 137:358192

TI Rapidly disintegratable solid preparation

IN Ohkouchi, Kazuhiro; Koyama, Hiroyoshi

PA Takeda Chemical Industries, Ltd., Japan

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002092058	A1	20021121	WO 2002-JP4641	20020514
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2003034655	A2	20030207	JP 2002-139116	20020514

PRAI JP 2001-145215 A 20010515

AB A rapidly disintegratable solid preparation comprises (1) an active ingredient, (2) a sugar and/or a sugar alc., (3) a cellulose derivative, and (4) a dissoln. aid. The solid preparation can be prepared by a dry method even under a low compression pressure and has a practically acceptable hardness and excellent properties, e.g., rapid disintegration, excellent dissoln. control, and less trouble in manufacturing. For example, granules were formulated containing manidipine hydrochloride, starch, hydroxypropyl cellulose, and iron oxide. Sep., granules were formulated containing mannitol, hydroxypropyl cellulose, citric acid, and iron oxide. The both granules, crystalline cellulose, aspartame, and Mg stearate were blended and compressed to give tablets.

IT 83480-29-9, Voglibose

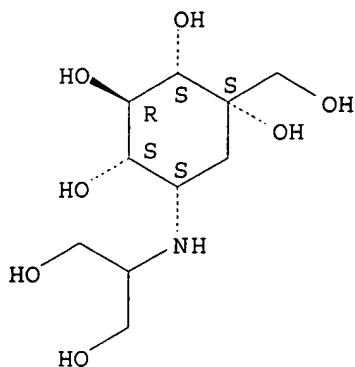
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(excipients for manufacturing rapidly disintegratable solid prepns.)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:637641 CAPLUS

DN 137:169309

TI Preparation of substituted aminobenzene derivatives as glucocorticoid receptor modulators

IN Link, James T.; Sorensen, Bryan K.; Patel, Jyoti R.; Arendsen, David L.; Li, Gaoquan

PA Abbott Laboratories, USA

SO PCT Int. Appl., 272 pp.

CODEN: PIXXD2

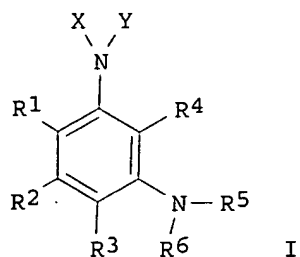
DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002064550	A1	20020822	WO 2002-US4501	20020212
	WO 2002064550	C1	20021114		
	W: CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	CA 2438480	AA	20020822	CA 2002-2438480	20020212
	EP 1363876	A1	20031126	EP 2002-714910	20020212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2005510450	T2	20050421	JP 2002-564483	20020212
PRAI	US 2001-783636	A	20010214		
	US 2002-72548	A	20020208		
	WO 2002-US4501	W	20020212		
OS	MARPAT 137:169309				
GI					





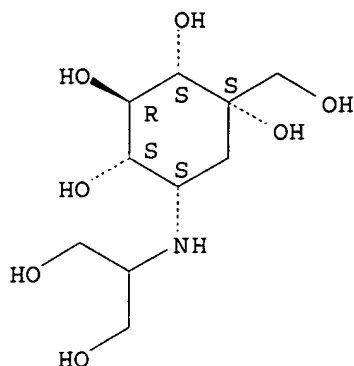
AB Gen, hydroxyalkyl, substituted amine; R4 is unsubstituted aminobenzenes I were prepared and are novel glucocorticoid receptor modulators and are useful for treating type II diabetes in a mammal, wherein R1-R3 are each independently hydrogen, alkoxycarbonyl, alkoxy, alkoxyalkyl, alkyl, alkylcarbonyl, carboxy, halogen, hydroxyalkyl, substituted amine; R4 is hydrogen, alkenyl, alkoxy, alkoxyalkenyl, alkoxyalkoxy, alkoxyalkyl, alkoxyalkynyl, alkoxycarbonyl, alkoxycarbonylalkoxy, alkoxycarbonylalkenyl, alkoxycarbonylalkyl, alkoxycarbonylalkynyl, alkyl, alkylcarbonyl, alkylcarbonylalkenyl, alkylcarbonylalkoxy, alkylcarbonylalkyl, alkylcarbonylalkynyl, alkynyl, carboxy, carboxyalkenyl, carboxyalkyl, carboxyalkynyl, haloalkoxy, haloalkyl, haloalkenyl, haloalkynyl, halogen, hydroxyalkyl, substituted amine; R5 is hydrogen, alkyl; R6 is hydrogen, alkoxycarbonyl, alkoxysulfonyl, alkyl, alkylcarbonyl, alkylsulfonyl, arylalkoxycarbonyl, arylalkylcarbonyl, arylalkylsulfonyl, arylcarbonyl, arylsulfonyl, cycloalkylcarbonyl, cycloalkylalkylcarbonyl, cycloalkylsulfonyl, cycloalkylalkylsulfonyl, heterocyclecarbonyl, heterocyclealkylcarbonyl, heterocyclesulfonyl, heterocyclealkylsulfonyl, amide, aminosulfonyl; X and Y are independently heteroatom-containing hydrocarbon. Thus, N-[3-(dibenzylamino)-2-methylphenyl]ethanesulfonamide was prepared as glucocorticoid receptor modulator. A method of treating symptoms related to type II diabetes wherein said symptoms are selected from the group consisting of hyperglycemia, hyperinsulinemia, inadequate, glucose clearance, obesity, hypertension and high glucocorticoid levels in a mammal comprising administering a therapeutically effective amount of a compound of title compds. A method of treating diseases associated with an excess or deficiency of glucocorticoids, said diseases selected from the group consisting of diabetes, obesity, Syndrome X, Cushing's Syndrome, Addison's disease, inflammatory diseases such as asthma, rhinitis and arthritis, allergy, autoimmune disease, immunodeficiency, anorexia, cachexia, bone loss or bone frailty, and wound healing comprising administering a therapeutically effective amount of a compound of title compds.

IT 83480-29-9, Voglibose  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of substituted aminobenzene derivs. as glucocorticoid receptor modulators)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 2      THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6    ANSWER 10 OF 13    CAPLUS    COPYRIGHT 2006 ACS on STN  
AN    2002:71854    CAPLUS  
DN    136:123667  
TI    Antidiabetic combinations containing enzymic nitric oxide donor  
IN    Szilvassy, Zoltan; Tosaki, Arpad; Nemeth, Jozsef; Kovacs, Peter; Pankucsi, Csaba; Hernadi, Ferenc; Ferninandy, Peter  
PA    Keri Pharma Kft., Hung.  
SO    PCT Int. Appl., 56 pp.  
      CODEN: PIXXD2  
DT    Patent  
LA    English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002005795	A2	20020124	WO 2001-HU79	20010713
	WO 2002005795	A3	20021219		
	WO 2002005795	B1	20030130		
	W:				
	AL, AU, BA, BB, BG, BR, CA, CN, CO, CR, CU, CZ, DM, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2415392	AA	20020124	CA 2001-2415392	20010713
	EP 1303304	A2	20030423	EP 2001-954229	20010713
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004503585	T2	20040205	JP 2002-511728	20010713
	US 2004068005	A1	20040408	US 2003-332946	20031017
PRAI	HU 2000-2628	A	20000714		
	WO 2001-HU79	W	20010713		

AB    Pharmaceutical combinations for treatment and/or prevention of all sorts, periods and complications of diabetes mellitus in mammals, thus including the pre-diabetic diseases and their complications, optionally including furthermore ischemic heart disease comprising an ED of at least one enzymic nitric oxide (NO) donor active ingredient and optionally comprising an ED of at least one antidiabetic active ingredient, and further optionally comprising usual pharmaceutically acceptable carriers and/or other auxiliaries. The combination may consist of more than one pharmaceutical compns. The EDs related to the new insulin-sensitizing effect are considerably lower than the usual doses related to the known effect of most active substances dues to metabolic effects that influence insulin sensitivity in healthy and insulin resistant mammals. The usual dose of NO-donors is necessary when the patient has also ischemic heart disease. Preferred antidiabetics include insulin, a thiazolidinedion, a

biguanide derivative, an  $\alpha$ -glucosidase-inhibitor, an  $\alpha$ 2-adrenergic-antagonist and/or a sulfonamide, preferably a sulfonylurea. Preferred enzymic NO donors are nitroglycerin, racemic isosorbide mononitrate, and/or its stereoisomers, racemic isosorbide dinitrate and/or its stereoisomers, erythrityl tetranitrate, pentaerythritol-tetranitrate, methylpropyl-propanediol-dinitrate, propatyl nitrate, trolnitrate, tenitramine and/or nicorandil. The invention includes methods of treatment and processes to prepare the compns.

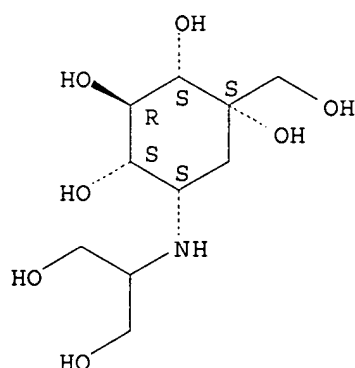
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antidiabetic combinations containing enzymic nitric oxide donor)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:51257 CAPLUS

DN 136:123595

TI A combination of phosphonate or phosphorodiamidate FBPase inhibitors and antidiabetic agents useful for the treatment of diabetes

IN Van Poelje, Paul D.; Erion, Mark D.; Fujiwara, Toshihiko

PA Metabasis Therapeutics, Inc., USA; Sankyo Company, Ltd.

SO PCT Int. Appl., 392 pp.

CODEN: PIXXD2

DT Patent

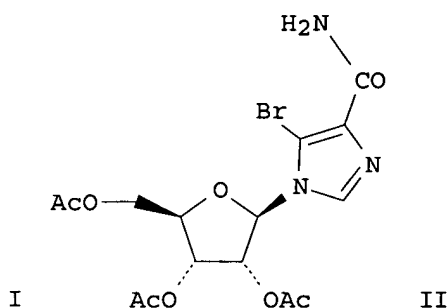
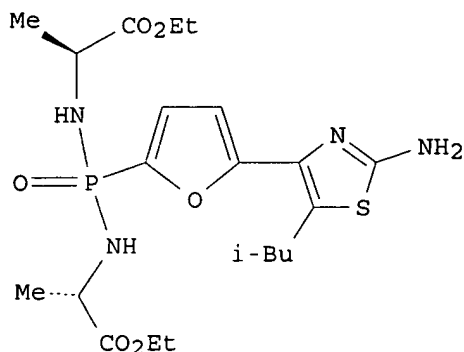
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002003978	A2	20020117	WO 2001-US21557	20010705
	WO 2002003978	A3	20031016		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2412142	AA	20020117	CA 2001-2412142	20010705
	US 2003073728	A1	20030417	US 2001-900364	20010705
	BR 2001012212	A	20031230	BR 2001-12212	20010705
	EP 1372660	A2	20040102	EP 2001-952530	20010705

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004508297	T2	20040318	JP 2002-508433	20010705
CN 1599612	A	20050323	CN 2001-814924	20010705
NZ 523227	A	20050429	NZ 2001-523227	20010705
ZA 2003000044	A	20040506	ZA 2003-44	20030102
NO 2003000034	A	20030305	NO 2003-34	20030103
AU 2006201410	A1	20060427	AU 2006-201410	20060404
PRAI US 2000-216531P	P	20000706		
US 2001-900364	A	20010705		
US 2000-215126P	P	20000629		
AU 2001-73271	A3	20010705		
WO 2001-US21557	W	20010705		
OS MARPAT 136:123595				
GI				

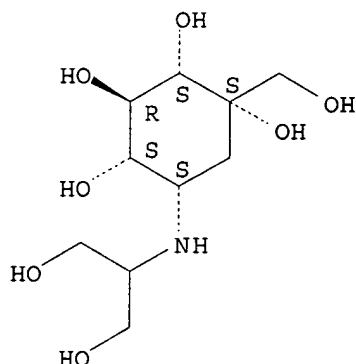


AB A combination therapy of at least one FBPase inhibitor ((R1Y)2P(O)M and R14C(O) (CR12R13)nN(R18)P(O) (NR15R16)M; e.g. 2-amino-5-propylthio-4-(5-phosphono-2-furanyl)thiazole monohydrobromide and 2-amino-5-isobutyl-4-[2-[N,N'-bis[(S)-1-(ethoxycarbonyl)ethyl]phosphonodiamido]-5-furanyl]thiazole (shown as I)) and at least one other antidiabetic agent (insulin secretagogue; e.g. glyburide, a sulfonylurea) is disclosed. (R1Y)2P(O)M and R14C(O) (CR12R13)nN(R18)P(O) (NR15R16)M are converted in vivo or in vitro to MPO32-, which inhibit FBPase; the substituents are defined in the claims. General methods and about 15 specific example preps. of the phosphorus compds. are included but no methods of preparation are claimed. In the biol. examples, data is presented for the following for selected phosphorus compds. and other materials: inhibition of human liver FBPase, inhibition of rat liver and mouse liver FBPase, inhibition of gluconeogenesis by an FBPase inhibitor in rat hepatocytes, inhibition of glucose prodn. and elevation of fructose-1,6-bisphosphate levels in rat hepatocytes treated with FBPase inhibitors, anal. of hepatic and plasma drug metabolite levels, blood glucose, and hepatic fructose 1,6-bisphosphate levels after administration of compound A (shown as II) p.o. to normal fasted rats, anal. of hepatic and plasma drug levels after administration of compds. i.p. to normal fasted rats, oral bioavailability determination of two compds. and oral glucose lowering activity of two compds. For insulin secretagogues: insulin release from pancreatic islets, glucose lowering in the fasted rat, i.v. glucose tolerance in the fasted rat, oral glucose tolerance in the Zucker diabetic fatty rat, insulin secretion in the rat, inhibition of KATP-channels in mouse pancreatic beta-cells, and sulfonylurea receptor binding. Also included are: inhibition of dipeptidyl peptidase IV (DPP-IV inhibitors), alpha-glucosidase assay, glycogen phosphorylase assay, assay of glucose 6-phosphatase inhibitors, glucagon antagonist assay, amylin agonist assay, fatty acid oxidn inhibitor assay, glucose lowering in the db/db mouse (FBPase inhibitor), glucose lowering in the ZDF rat, acute combination treatment of an insulin

secretagogue and an FBPase inhibitor in the ZDF rat, chronic combination treatment of an insulin secretagogue and an FBPase inhibitor in the ZDF rat, acute combination treatment of insulin and an FBPase inhibitor in db/db mice, beneficial effect of chronic combination treatment of insulin and an FBPase inhibitor in db/db mice, and beneficial effect of chronic combination treatment of insulin and an FBPase inhibitor in db/db Mice. Also included are: acute combination treatment of insulin and an FBPase inhibitor in the Goto-Kakizaki rat, acute combination treatment of a biguanide and an FBPase inhibitor in db/db mice, acute combination treatment of an alpha glucosidase inhibitor and an FBPase inhibitor in Goto-Kakizaki rats, acute combination treatment of a glycogen phosphorylase inhibitor and an FBPase inhibitor in db/db or ob/ob mice, acute combination treatment of a glucose-6-phosphatase inhibitor and an FBPase inhibitor in db/db or ob/ob mice, acute combination treatment of an FBPase inhibitor and an amylin agonist, chronic combination treatment of a fatty acid oxidn. inhibitor and an FBPase inhibitor in the streptozotocin-induced diabetic rat.

IT 83480-29-9, Voglibose  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (insulin secretagogue; combination of phosphonate or phosphorodiamidate FBPase inhibitors and antidiabetic agents useful for treatment of diabetes)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2001:816444 CAPLUS  
 DN 135:352829  
 TI Combination therapeutic compositions containing benzene compounds  
 IN Jaen, Juan C.; Chen, Jin-Long  
 PA Tularik Inc., USA  
 SO PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2

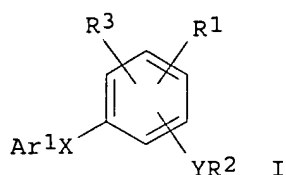
DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001082916	A2	20011108	WO 2001-US14393	20010502
	WO 2001082916	A3	20020704		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,  
 YU, ZA, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002037928	A1	20020328	US 2001-847887	20010502
US 6653332	B2	20031125		
US 2004259918	A1	20041223	US 2003-456932	20030605
US 2006035928	A1	20060216	US 2005-258817	20051026
PRAI US 2000-201613P	P	20000503		
US 2001-847887	A1	20010502		
US 2003-456932	A1	20030605		
OS MARPAT 135:352829				
GI				



AB The present invention provides pharmaceutical compns. and methods for the treatment of diabetes mellitus using combination therapy. The compns. relate to a benzene compound and an antidiabetic agent such as sulfonylureas, biguanides, glitazones,  $\alpha$ -glucosidase inhibitors, potassium channel antagonists, aldose reductase inhibitors, glucagon antagonists, activators of RXR, insulin therapy or other anti-obesity agent. The methods include the administration of the combination of benzene compound with antidiabetic agent where the two components are delivered in a simultaneous manner, where the benzene compound is administered first, followed by the antidiabetic agent, as well as wherein the antidiabetic agent is delivered first followed by the benzene compound. For example, the benzene compound (I) was synthesized using a 5-amino-2-(3-chloro-5-pyridyloxy)benzonitrile (0.457 g) in methylene chloride to which was added 2,4-dichlorobenzenesulfonyl chloride (0.456 g), followed by pyridine (150  $\mu$ L). The reaction progress was monitored by TLC, and upon completion the solvent was removed under vacuum. The resulting residue was partitioned between methylene chloride and water. The organic layer was drawn off and concentrated. The residue was triturated with ether to provide 0.447 g of I as a white solid, m.p. 154-156°.

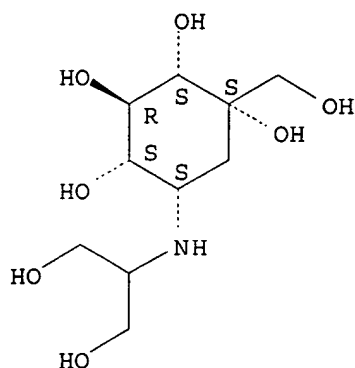
IT 83480-29-9, Voglibose  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(benzene compds. in combination therapy for diabetes and diabetes-related disorders)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:612976 CAPLUS

DN 121:212976

TI Tablets with improved abrasion resistance and method to produce them

IN Matoba, Hiroshi; Koyama, Hiroyoshi; Kikuta, Junichi

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 610854	A1	19940817	EP 1994-101809	19940207
	EP 610854	B1	20000419		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	JP 06293634	A2	19941021	JP 1994-23269	19940124
	JP 2647338	B2	19970827		
	US 5456920	A	19951010	US 1994-187908	19940128
	NO 9400373	A	19940811	NO 1994-373	19940204
	AT 191846	E	20000515	AT 1994-101809	19940207
	CN 1106652	A	19950816	CN 1994-101367	19940208
	CA 2115308	AA	19940811	CA 1994-2115308	19940209
	CA 2115308	C	20040511		
	FI 9400585	A	19940811	FI 1994-585	19940209
PRAI	JP 1993-45958	A	19930210		

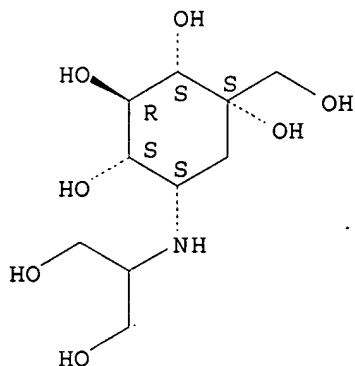
AB A compression-moldable composition comprising an active ingredient, an excipient, and an oily or fatty substance having a m.p. of .apprx.20-90° is compression molded into uncoated tablets without coating to improve the abrasion resistance. The oily or fatty substance includes a higher fatty acid or a salt thereof, a wax, a fatty acid ester, a hardened oil, a polyalkylene oxide, etc., in an amount of 0.01-10 weight%. The composition may comprise (1) a granulated powder

containing the

active ingredient and the excipient, and the powdery or granular oily or fatty substance having a lower m.p., or (2) a granulated powder containing the active ingredient, the excipient, and the oily or fatty substance. Compression molding of the composition improves the abrasion resistance of the tablet and inhibits the development of powder by wearing or abrasion even when the oily or fatty substance is used in a small amount of 0.1-0.5 weight%. Thus, 2-(7-chloro-1,8-naphthyridin-2-yl)-3-(1,4-dioxo-8-azaspiro[4.5]dec-8-yl)carbonylmethylisoindolin-1-one 32.0 was granulated with lactose 756.8, corn starch 144.0, and 6% aqueous hydroxypropylcellulose 451.2 g at 70° in a fluidized bed, the mixture was dried and comminuted, and 840.0 g was combined with PEG 6000 3.6 and Mg stearate 66.4 g and compression molded in a rotary tablet machine to form 130.0-mg tablets 2.5 mm thick. Very little powder was formed by shaking the tablets for 30 min.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (tablets with improved abrasion resistance containing oils or fats)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> dis 15 1-55 bib abs hitstr

L5 ANSWER 1 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2006:669521 CAPLUS  
 DN 145:103918  
 TI Preparation of voglibose crystals  
 IN Ji, Xiaoming; Yao, Yong; Zhuo, Zhonghao; Zheng, Yunman; Cui, Jiajia  
 PA Shanghai Techwell Biopharmaceutical Co., Ltd., Peop. Rep. China  
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.  
 CODEN: CNXXEV

DT Patent  
 LA Chinese

FAN.CNT 1

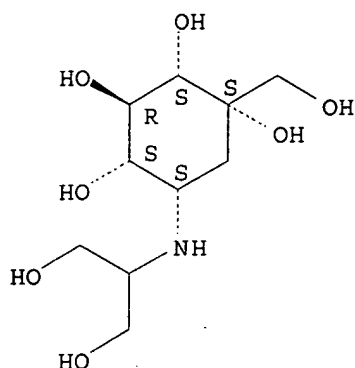
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1796396	A	20060705	CN 2004-10093524	20041224
PRAI	CN 2004-10093524		20041224		

AB The invention relates to voglibose crystal which has characterized peaks on 2θ angle: 13.4, 14.7, 15.4, 17.4, 20.0, 21.8, 23.3, 24.5, 26.0 and 27.1±0.2°, and m.p. of 164-168°. The invention also relates to pharmaceutical composition comprising the above voglibose crystal and use thereof for treating diabetes. The invention further relates to preparation method for voglibose crystal which comprises dissolving voglibose in water, freezing to (-60)-0°, freeze drying, adding ethanol 2-200 mL/g, heating to 35-90°, cooling to obtain precipitated voglibose crystal.

IT 83480-29-9P, Voglibose  
 RL: PRP (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of voglibose crystals for treatment of diabetes)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L5 ANSWER 2 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:542611 CAPLUS

DN 145:21196

TI Treatment of diabetes and diabetes-related conditions with glycogen phosphorylase inhibitors

IN Thomas, Gerard Hugh; Thomsen, Mikael

PA Prosidion Ltd., UK

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006059163	A1	20060608	WO 2005-GB50232	20051202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRAI US 2004-632591P P 20041202

OS CASREACT 145:21196

AB The invention provides a method of treatment of diabetes, particularly type II diabetes, or a diabetes related condition, comprising night time dosing of an inhibitor of glycogen phosphorylase, optionally in combination another antidiabetic therapy. Preparation of e.g. 5-chloropyrrolo[2,3-c]pyridine-2-carboxylic acid [1-(S)-(4-fluorobenzyl)-2-(4-hydroxypiperidin-1-yl)-2-oxoethyl]amide hydrochloride is described.

IT 83480-29-9, Voglibose

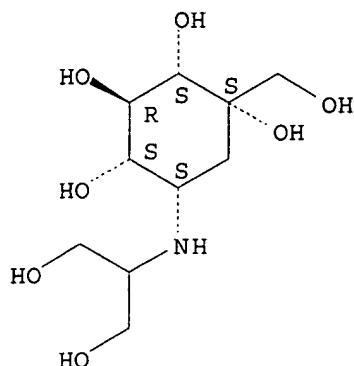
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(glycogen phosphorylase inhibitors for treatment of diabetes and diabetes-related conditions, and use with other agents)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

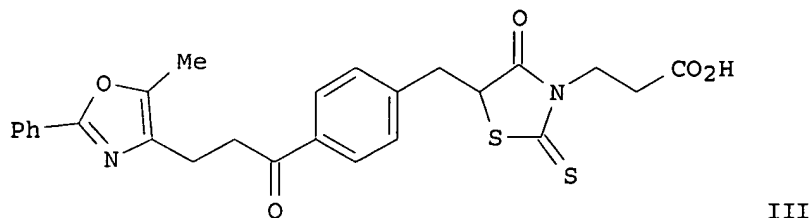
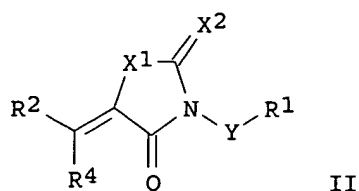
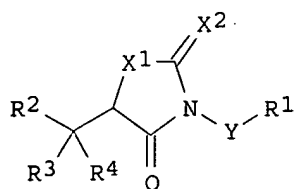
Absolute stereochemistry.



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2006:367143 CAPLUS  
DN 144:412493  
TI Rhodanine derivatives as PPAR receptor modulators and their preparation,  
pharmaceutical compositions and use for treatment and prophylaxis of  
various diseases  
IN Sarshar, Sepehr; Marappan, Subrumanian  
PA Auspex Pharmaceuticals, Inc., USA  
SO PCT Int. Appl., 106 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006041921	A2	20060420	WO 2005-US35832	20051004
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI US 2004-616574P	P	20041005		
OS MARPAT 144:412493				
GI				



AB Processes for the preparation of compds. of formulas I and II are described. These compds. can be used as PPAR modulators and for the treatment and/or management of cancer, inflammation, cellular differentiation and proliferation, wound healing, metabolism of lipids and carbohydrates, obesity, diabetes, and energy homeostasis. Compds. of formula I and II wherein X1 and X2 are independently O, S, or NH; Y is (un)substituted C1-10 alkyl; R1 is (un)substituted C5-11 oxocycloalkenyl, (R9CO)(R10CO)CH, or (un)substituted dioxodioxanyl; R9 and R10 are independently OH, alkoxy, aryloxy, NH2, alkylamino, arylamino, N-aryl-N-alkylamino, -NHNH2, alkylhydrazino, arylhydrazino, N-aryl-N-alkylamino, NHOH and derivs., alkyl, or aryl; R2 and R3 are independently H, halo, or alkyl; R4 is substituted aryl and heteroaryl; and their pharmaceutically acceptable salts, and prodrugs thereof are claimed. Example compound III was prepared by addition of methylolithium to 4-(diethoxymethyl)benzaldehyde to give the corresponding alc., which was oxidized to give 4-(diethoxymethyl)acetophenone, which underwent acylation with di-Et carbonate; the resulting 2-[4-(diethoxymethyl)benzoyl]acetate underwent alkylation with 4-chloromethyl-5-methyl-2-phenyloxazole followed by decarboxylation to give 4-[3-(5-methyl-2-phenyl-4-oxazolyl)propionyl]benzaldehyde, which underwent condensation with rhodanine-N-propionic acid to give 4-[3-(5-methyl-2-phenyl-4-oxazolyl)propionyl]benzylidene-3-(β-carboxyethyl)rhodanine, which underwent hydrogenation to give example compound III. The invention compds. were evaluated for their PPAR-γ modulating activity. From the assay, it was determined example compound III exhibited an EC50 0.127 μM.

IT 83480-29-9, Voglibose

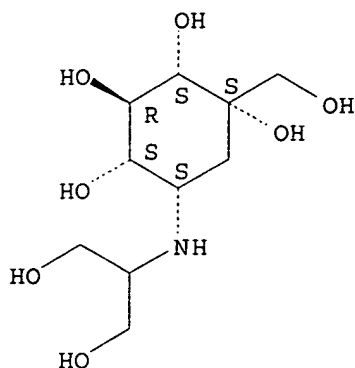
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of rhodanine derivs. as PPAR receptors modulators useful in treatment and prophylaxis of diseases)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:295558 CAPLUS

DN 144:343604

TI Methods and compositions for treating glucose-associated conditions, metabolic syndrome, dyslipidemias and other conditions

IN Aziz, Nazneen; Jesson, Michael I.; McLean, Paul, A.; Miller, Glenn T.; Jones, Barry

PA Point Therapeutics, Inc., USA

SO PCT Int. Appl., 148 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

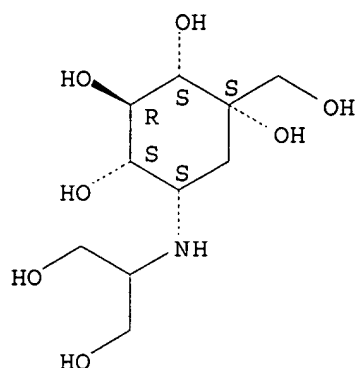
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006034435	A2	20060330	WO 2005-US34112	20050921
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	US 2006094693	A1	20060504	US 2005-233532	20050921
PRAI	US 2004-612069P	P	20040921		
	US 2004-622466P	P	20041027		
	US 2005-700871P	P	20050719		
	US 2005-704157P	P	20050729		

OS MARPAT 144:343604

AB The invention relates, in part, to of glutamic acid boroproline (Glu-boroPro) containing compds. and methods of use thereof in the prevention or management of conditions that are associated with impaired glucose tolerance such as diabetes. The invention also relates to compns. of Glu-boroPro containing compds. and methods of use thereof in the prevention or management of conditions such as metabolic syndrome, dyslipidemias, inflammation, cardiovascular disorders such as hypertension and atherosclerosis, and to reduce body weight or prevent weight gain. The compds. of the invention are also useful in lowering levels of triglycerides, free fatty acids, C-reactive protein (CRP), HbA1C, total glycosylated Hb (TGHb), in increasing insulin sensitivity index and in stimulating insulin release. The method may further comprise administering a second agent such as an antidiabetic agent. The inhibition of the serine protease DPP-IV by the compds. in vitro and vivo

was determined  
IT 83480-29-9, Voglibose  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(treatment of glucose-associated conditions and dyslipidemias and other  
conditions using glutamic acid boroprolone containing compds. and other  
agents in relation to inhibition of serine protease DPP-IV)  
RN 83480-29-9 CAPLUS  
CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2006:283034 CAPLUS  
DN 144:445125  
TI Control of plasma glucose with alpha-glucosidase inhibitor attenuates  
oxidative stress and slows the progression of heart failure in mice  
AU Liao, Yulin; Takashima, Seiji; Zhao, Hui; Asano, Yoshihiro; Shintani,  
Yasunori; Minamino, Tetsuo; Kim, Jiyoong; Fujita, Masashi; Hori,  
Masatsugu; Kitakaze, Masafumi  
CS Department of Cardiovascular Medicine, Osaka University Graduate School of  
Medicine, Suita, Osaka, 565-0871, Japan  
SO Cardiovascular Research (2006), 70(1), 107-116  
CODEN: CVREAU; ISSN: 0008-6363  
PB Elsevier B.V.  
DT Journal  
LA English  
AB It was suggested that reduction in glucose levels contributes to the  
prolongation of life span of rodents in conjunction with restricted food  
intake, and hyperglycemia was confirmed as a risk factor for  
cardiovascular disease (CVD), raising the possibility that better glycemic  
control could slow the progression of CVD. This study was designed to  
determine whether impaired glucose tolerance develops during the progression of  
cardiac hypertrophy and heart failure, and whether tight glycemic control  
could reduce the severity of heart failure. In male C57BL/6 mice,  
transverse aortic constriction (TAC) was employed to create cardiac  
hypertrophy and heart failure. The involvement of NADPH in TAC mice and  
cardiac myocytes in the neonatal rat was investigated. The random-fed  
blood plasma glucose concentration was higher in TAC mice, and it was reduced  
to about 100 mg/dL by voglibose (an alpha-glycosidase inhibitor).  
Four weeks after TAC, both the heart weight/body weight ratio and the lung  
weight/body weight ratio were lower in the voglibose group than in the  
TAC group. Echocardiog. and invasive hemodynamic examination showed  
improvement of left ventricular function in voglibose-treated  
mice. Voglibose treatment decreased the myocardial expression  
of an NADPH oxidase subunit (p47phox). Glucose dose-dependently increased

both neonatal rat myocyte protein synthesis and the expression of p47phox protein, while apocynin (an NADPH oxidase inhibitor) blocked the enhancement of protein synthesis by high glucose. Improvement of glycemic control through voglibose therapy inhibited cardiac remodeling by decreasing myocardial oxidative stress in mice with cardiac pressure overload.

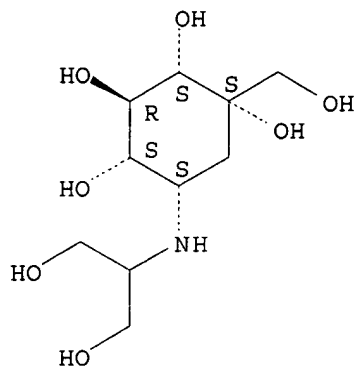
IT 83480-29-9, Voglibose

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(glycemic control with voglibose attenuates oxidative stress and slows progression of heart failure)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1075757 CAPLUS

DN 143:367531

TI Processes for the purification of voglibose and the preparation and purification of its intermediates

IN Babu, Jayachandra Suresh; Chavan, Gajanan Jijaba; Khanduri, Chandra Has; Kumar, Yatendra; Ray, Purna Chandra

PA Ranbaxy Laboratories Limited, India

SO PCT Int. Appl., 19 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005092834	A1	20051006	WO 2005-IB777	20050324
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW</p> <p>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p>				

PRAI IN 2004-DE616 A 20040329

OS MARPAT 143:367531

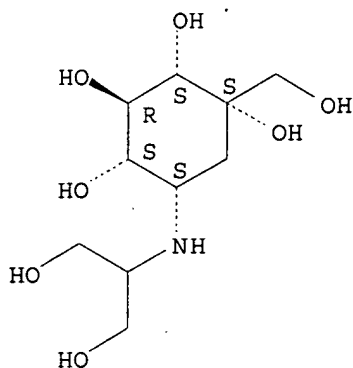
AB Voglibose is purified by adding it to a solvent and contacting the solution with activated carbon, filtering, and crystallizing the filtrate. Also described are processes for the preparation and purification of substituted or unsubstituted 5-oxo-1,2,3,4-cyclohexanetetrol and substituted 5-amino-1,2,3,4-cyclohexanetetrol, which compds. are useful intermediates in the preparation of voglibose.

IT 83480-29-9P, Voglibose  
 RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (processes for the purification of voglibose and the preparation and purification of its intermediates)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1058467 CAPLUS

DN 144:163949

TI Voglibose potentiates the hepatotoxicity of carbon tetrachloride and acetaminophen by inducing CYP2E1 in rats

AU Qin, Li-Qiang; Wang, Pei-Yu; Wang, Yuan; Kaneko, Takashi; Hoshi, Kazuhiko; Sato, Akio

CS Department of Obstetrics and Gynecology, School of Medicine, University of Yamanashi, Tamaho Town, Yamanashi, 409-3898, Japan

SO Hepatology Research (2005), 33(1), 50-56  
 CODEN: HPRSFM; ISSN: 1386-6346

PB Elsevier B.V.

DT Journal

LA English

AB Background: Voglibose is an  $\alpha$ -glucosidase inhibitor used to decrease postprandial hyperglycemia in diabetic patients. Although clin. concern has not yet been raised, hepatic dysfunction has been reported in a few patients taking this drug. Method: In the present study, we studied the effects of voglibose on the hepatotoxicity of carbon tetrachloride (CCl<sub>4</sub>) and acetaminophen (APAP) in rats, since both of these agents exert their effects through isoforms of cytochrome P 450. Male Sprague-Dawley rats were given a daily ration (20 g) of powdered chow diet containing 0, 2.5, 5.0 or 10.0 mg/100 g of voglibose. Three weeks later, the rats were challenged with either 0.50 g/kg CCl<sub>4</sub> orally or 0.75 g/kg APAP i.p. for biochem. examns. or killed for an in vivo metabolism study. Results: Voglibose at these three exptl. doses potentiated CCl<sub>4</sub> and APAP hepatotoxicity, as evidenced by significantly increased levels of both plasma aspartate transaminase (AST) and alanine transaminase (ALT). The glutathione (GSH)

content was decreased while malondialdehyde (MDA) increased in the liver after CCl4 or APAP administration. Hepatic cytochrome P 450 2E1 (CYP2E1) concentration was increased at doses of 5.0 and 10.0 mg/100 g of voglibose and its activity increased in the three voglibose dosage groups, while hepatic cytochrome P 450 3A (CYP3A) and cytochrome P 450 1A2 (CYP1A2) were only slightly changed at any dose. Conclusion: Our study demonstrated that voglibose can potentiate CCl4 and APAP hepatotoxicity in rats by inducing hepatic CYP2E1.

IT 83480-29-9, Voglibose

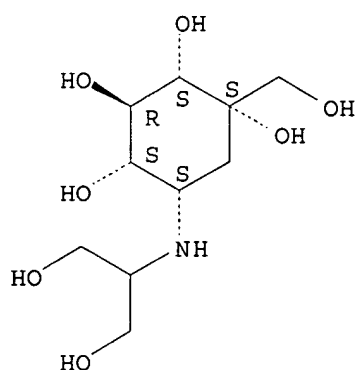
RL: ADV (Adverse effect, including toxicity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(voglibose potentiated carbon tetrachloride and acetaminophen induced hepatotoxicity by inducing hepatic cytochrome P 450 2E1 in rat)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:511752 CAPLUS

DN 143:298852

TI Inhibitory effect of pine extract on  $\alpha$ -glucosidase activity and postprandial hyperglycemia

AU Kim, Yong-Mu; Jeong, Youn-Kab; Wang, Myeong-Hyeon; Lee, Wi-Young; Rhee, Hae-Ik

CS Division of Biotechnology, Kangwon National University, Chunchon, S. Korea

SO Nutrition (New York, NY, United States) (2005), 21(6), 756-761

CODEN: NUTRER; ISSN: 0899-9007

PB Elsevier Inc.

DT Journal

LA English

AB Objective: This study investigated the inhibitory effect of pine bark extract (PBE) and needle extract on carbohydrate-hydrolyzing enzymes and the hypoglycemic effect in diabetic mice (Lep ob [ob/ob]). Methods: Pine bark and needle were dried and then placed in ethanol, and the exts. were assayed for the measurement of inhibition mode of PBE against  $\alpha$ -amylase (EC 3.2.1.1) and  $\alpha$ -glucosidase (EC 3.2.1.20). We also investigated the effect of long-term treatment with exts. on levels of postprandial blood glucose, body weight, food efficiency ratio, and gene expression of glucose transporter-4 in quadriceps muscle in diabetic mice (Lep ob [ob/ob]). Results: The PBE showed competitive inhibition against salivary  $\alpha$ -amylase and the combination of non-competitive and uncompetitive inhibition against yeast  $\alpha$ -glucosidase. In animal expts., PBE effectively suppressed the increase of postprandial blood glucose level by delaying absorption of diet, and body wts. of the group



that received PBE were significantly lower than that in the group administered 0.5% carboxymethyl cellulose (control) 21 d after administration. Conclusions: PBE can be used to suppress postprandial hyperglycemia of diabetic patients. It also can be applied for control of obesity by decreasing the food efficiency ratio, especially carbohydrates.

IT 83480-29-9, Voglibose

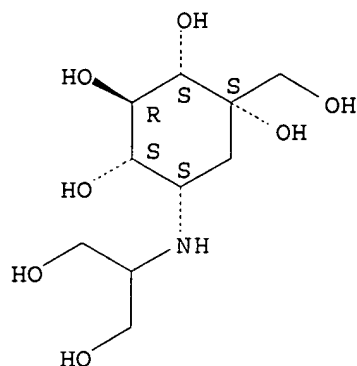
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitory activity of pine bark extract on  $\alpha$ -glucosidase from porcine small intestine was lower than that of acarbose or voglibose in diabetic mouse)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:472107 CAPLUS

DN 143:26811

TI Process for the preparation of 1,2,3,4-cyclohexanetetrol derivatives as intermediates for preparation of voglibose

IN Khanduri, Chandra Has; Babu, Jayachandra Suresh; Ray, Purna Chandra; Shah, Jigar Bhaskarbai; Kumar, Yatendra

PA Ranbaxy Laboratories Limited, India

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

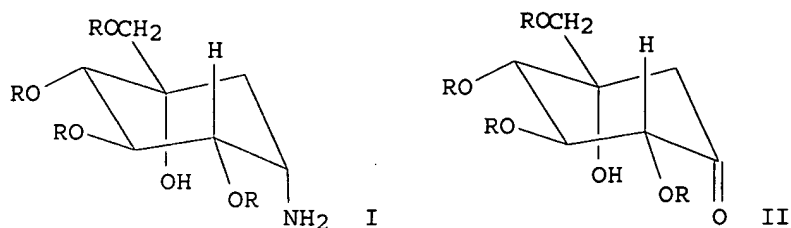
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005049547	A1	20050602	WO 2004-IB3782	20041118
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	IN 2003-DE1448	A	20031121		
	IN 2004-DE1507	A	20040816		

OS CASREACT 143:26811; MARPAT 143:26811  
GI



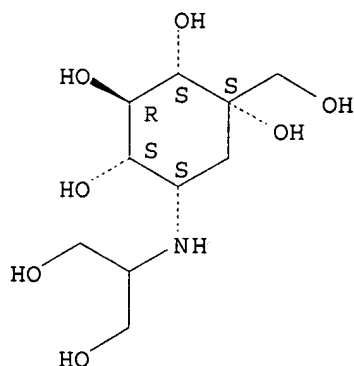
AB The aminocyclohexanetetrol derivs. I (R = H, protective group), intermediates for voglibose, were prepared by reaction of the 2,3,4,5-tetrahydroxycyclohexanone derivs. II with ammonium acetate, ammonium formate or a mixture thereof and one or more reducing agents. Thus, II (R = Bn), prepd from the 6,6-dichloro derivative, underwent reductive amination with ammonium acetate and sodium cyanoborohydride to give I (R = Bn), which reacted with with 1,3-dihydroxyacetone followed by hydrogenolysis to give voglibose.

IT 83480-29-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(process for preparation of 1,2,3,4-cyclohexanetetrol derivs. as intermediates for voglibose)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:300390 CAPLUS  
DN 142:374066  
TI Salification and neutralization process for the preparation of pure voglibose  
IN Khanduri, Chandra Has; Babu, Jayachandra Suresh; Ray, Purna Chandra; Shah, Jigar Bhaskarbai; Kumar, Yatendra  
PA Ranbaxy Laboratories Limited, India  
SO PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005030698	A1	20050407	WO 2004-IB3120	20040924
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI IN 2003-DE1210 A 20030926

AB Pure voglibose, useful as a pharmaceutical, is prepared by preparing the crystalline hydrochloride salt of voglibose from voglibose and HCl and then neutralizing that salt with a base.

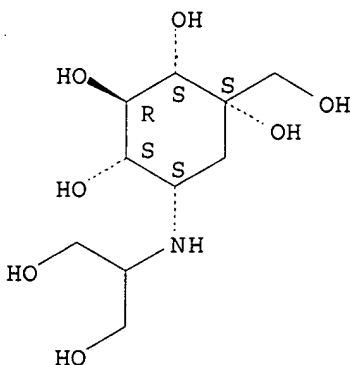
IT 849419-34-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(in a salification and neutralization process for the preparation of pure voglibose)

RN 849419-34-7 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

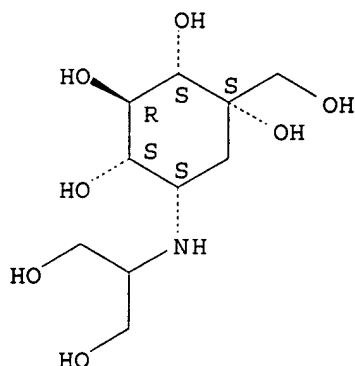
IT 83480-29-9P, Voglibose

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)  
(salification and neutralization process for the preparation of pure voglibose)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

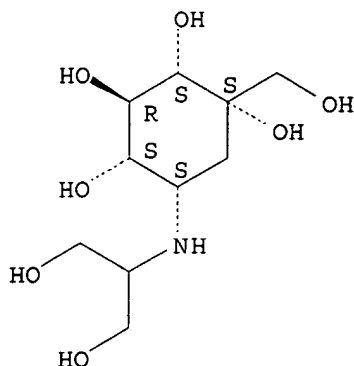


RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:216708 CAPLUS  
DN 142:285211  
TI Combination of cicletanine and an oral antidiabetic and/or blood  
lipid-lowering agent for treating diabetes and metabolic syndrome  
IN Fong, Benson M.; Cornett, Glenn V.  
PA Cotherix, Inc., USA  
SO PCT Int. Appl., 62 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005021039	A1	20050310	WO 2004-US28087	20040827
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2537180	AA	20050310	CA 2004-2537180	20040827
PRAI	US 2003-498916P	P	20030829		
	WO 2004-US28087	W	20040827		
AB	Preferred embodiments of the present invention are related to novel therapeutic drug combinations and methods for treating and/or preventing complications in patients with diabetes and/or metabolic syndrome. More particularly, aspects of the present invention are related to using a combination of cicletanine and an oral antidiabetic agent for treating and/or preventing complications (including microalbuminuria, nephropathies, retinopathies and other complications) in patients with diabetes or metabolic syndrome.				
IT	83480-29-9, Voglibose RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (combination of cicletanine and an oral antidiabetic and/or blood lipid-lowering agent for treating diabetes and metabolic syndrome)				
RN	83480-29-9 CAPLUS				
CN	D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2005:216666 CAPLUS  
DN 142:291400  
TI Glutaminyl thiazolidine or glutaminyl pyrrolidine in combination with  
other hypoglycemic agents for glycemic control  
IN Demuth, Hans-Ulrich; Glund, Konrad; Hoffmann, Matthias  
PA Prosidion Ltd., UK  
SO PCT Int. Appl., 54 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

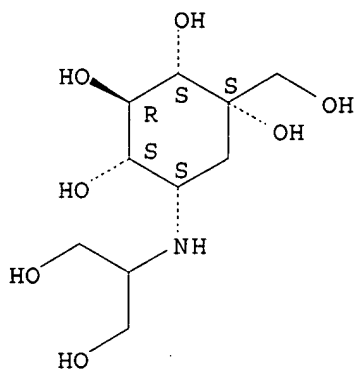
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005020983	A2	20050310	WO 2004-IB3082	20040902
	WO 2005020983	A3	20050728		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004267955	A1	20050310	AU 2004-267955	20040902
	CA 2536432	AA	20050310	CA 2004-2536432	20040902
	EP 1663200	A2	20060607	EP 2004-769446	20040902
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
PRAI	US 2003-499535P	P	20030902		
	WO 2004-IB3082	W	20040902		

AB The invention relates to method of treatment, in particular to a method for the treatment of diabetes mellitus, especially non-insulin dependent diabetes mellitus (NIDDM) or Type 2 diabetes and conditions associated with diabetes mellitus the pre-diabetic state and/or obesity and to compns. for use in such method. The invention comprises the administration of glutaminyl thiazolidine or glutaminyl pyrrolidine in combination with other antidiabetic agents. Glutaminyl pyrrolidine free base and hydrochloride and glutaminyl thiazolidine hydrochloride were synthesized.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (glutaminy l thiazolidine or glutaminy l pyrrolidine in combination with  
 other hypoglycemic agents for glycemic control)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 13 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:130505 CAPLUS  
 DN 142:475688  
 TI  $\alpha$ -Glucosidase inhibitor reduces the progression of carotid  
 intima-media thickness  
 AU Yamasaki, Yoshimitsu; Katakami, Naoto; Hayaishi-Okano, Rieko; Matsuhisa,  
 Munehide; Kajimoto, Yoshitaka; Kosugi, Keisuke; Hatano, Mitue; Hori,  
 Masatsugu  
 CS Department of Internal Medicine and Therapeutics, Osaka University  
 Graduate School of Medicine, Suita City, Osaka, 565-0871, Japan  
 SO Diabetes Research and Clinical Practice (2005), 67(3), 204-210  
 CODEN: DRCP9; ISSN: 0168-8227  
 PB Elsevier B.V.  
 DT Journal  
 LA English  
 AB Objective: An open randomized prospective study was performed to elucidate  
 the effect of an  $\alpha$ -glucosidase inhibitor, voglibose, on  
 the progression of atherosclerosis in subjects with type 2 diabetes.  
 Research design and methods: Voglibose at a dose of  
 0.4-0.6 mg/day was added on 51 subjects out of 101 type 2 diabetic  
 patients being treated with diet, sulfonylurea (SU) or insulin injections,  
 and the average (AveIMT) and maximum intima-media thickness (MaxIMT) of their  
 carotid arteries were examined for 3 years. Results: Irresp. of the  
 differences in treatments, addition of voglibose reduced the  
 progression of AveIMT and MaxIMT to  $-0.024 \pm 0.047$  ( $\pm$ S.D.) and  
 $-0.021 \pm 0.144$  mm/yr, resp. Without voglibose, diabetic  
 patients showed significant ( $P < 0.0001$ ) progression of AveIMT and MaxIMT  
 $(0.056 \pm 0.046$  and  $0.098 \pm 0.122$  mm/yr, resp.). The administration  
 of voglibose resulted in a significant reduction of Hb A1c (HbA1c),  
 total cholesterol and triglyceride concns., as well as an increase in HDL  
 cholesterol concentration Multivariate regression anal. showed that  
 administration of voglibose independently reduced the  
 progression of AveIMT by  $0.069$  mm/yr ( $P < 0.0001$ ). Conclusions: These  
 results suggest that voglibose reduces the progression of IMT  
 and may be a candidate for an anti-atherosclerotic drug for type 2  
 diabetic patients.  
 IT 83480-29-9, Voglibose  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

AB The methods of the invention relate to the treatment of diabetes, including type 2 diabetes, and related disorders by administration of a PDE10A inhibitor. Such PDE10A inhibitors may be administered in conjunction with alpha-glucosidase inhibitors, insulin

sensitizers, insulin secretagogues, hepatic glucose output lowering compds.,  $\beta$ -3 agonist, or insulin. Such PDE10A inhibitors may also be administered in conjunction with body weight reducing agents. Further methods of the invention relate to stimulating insulin release from pancreatic cells, for example, in response to an elevation in blood glucose concentration, by administration of a PDE10A inhibitor.

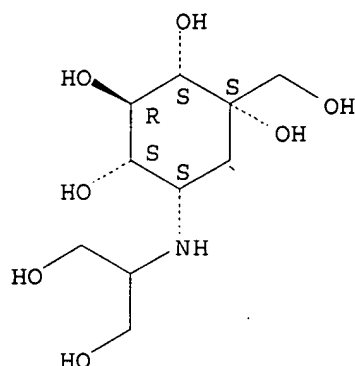
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(PDE10a inhibitors for treating diabetes and related disorders)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 15 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:120729 CAPLUS

DN 142:219276

TI Preparation of 5-substituted 2H-pyrazole-3-carboxylic acid derivatives as agonists for the RUP25 nicotinic acid receptor for the treatment of dyslipidemia and related diseases

IN Semple, Graeme; Gharbaoui, Tawfik; Shin, Young-Jun; Decaire, Marc; Averbuj, Claudia; Skinner, Philip J.

PA Arena Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 130 pp.

CODEN: PIXXD2

DT Patent

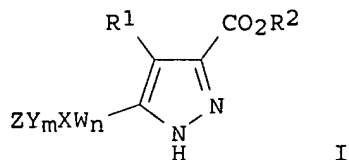
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005011677	A1	20050210	WO 2004-US18389	20040610
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004260636	A1	20050210	AU 2004-260636	20040610
	CA 2528834	AA	20050210	CA 2004-2528834	20040610
	EP 1633351	A1	20060315	EP 2004-776418	20040610
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				



PRAI US 2003-478664P P 20030613  
 WO 2004-US18389 W 20040610  
 OS MARPAT 142:219276  
 GI



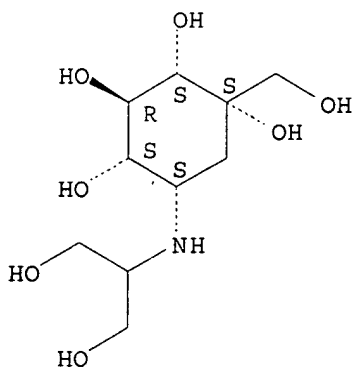
AB Title compds. [I; W, Y = (substituted) alkylene, alkenylene, alkynylene; X = NR3CO, NR3SO2, NR3, CO, CH(OH), C(NH), O, S, SO, SO2, etc.; R3, R4 = H, (substituted) alkyl, Ph, heteroaryl; Z = H, halo, (substituted) Ph, heteroaryl; R1 = H, OH, halo, alkyl, haloalkyl; R2 = H, alkyl; m, n = 0, 1; with provisos], were prepared Thus, 5-methylthiomethyl-2H-pyrazole-3-carboxylic acid (preparation outlined) showed hRUP25 agonist activity with EC50 = 4.3  $\mu$ M.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (coadministration; preparation of pyrazolecarboxylates as agonists for the RUP25 nicotinic acid receptor for the treatment of dyslipidemia and related diseases)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:111522 CAPLUS  
 DN 143:53258  
 TI  $\alpha$ -glucosidase inhibitors for patients with type 2 diabetes: Results from a Cochrane systematic review and meta-analysis  
 AU van de Laar, Floris A.; Lucassen, Peter L.; Akkermans, Reinier P.; van de Lisdonk, Eloy H.; Rutten, Guy E.; van Weel, Chris  
 CS Department of General Practice, Radboud University Nijmegen Medical Centre, Nijmegen, Neth.  
 SO Diabetes Care (2005), 28(1), 154-163  
 CODEN: DICAD2; ISSN: 0149-5992

PB American Diabetes Association, Inc.

DT Journal

LA English

AB OBJECTIVE: To review the effects of monotherapy with  $\alpha$ -glucosidase inhibitors (AGIs) for patients with type 2 diabetes, with respect to mortality, morbidity, glycemic control, insulin levels, plasma lipids, body weight, and side effects. RESEARCH DESIGN AND METHODS: We systematically searched the Cochrane Central register of Controlled Trials, MEDLINE, EMBASE, Current Contents, LILACS, databases of ongoing trials, and reference lists, and we contacted experts and manufacturers. Inclusion criteria were randomized controlled trials of at least 12 wk' duration, AGI monotherapy compared with any intervention, and one of the following outcome measures: mortality, morbidity, GHb, blood glucose, lipids, insulin levels, body weight, or side effects. Two independent reviewers assessed all abstrs., extracted all data, and assessed quality. We contacted all authors for data clarification. Continuous data were expressed as weighted mean differences and analyzed with a random-effects model. Possible influences of study characteristics and quality were assessed in sensitivity and meta-regression analyses. RESULTS: Forty-one studies were included in the review (30 acarbose, 7 miglitol, 1 voglibose, and 3 combined), and heterogeneity was limited. We found no evidence for an effect on mortality or morbidity. Compared with placebo, AGIs had a beneficial effect on GHb (acarbose -0.77%; miglitol -0.68%), fasting and postload blood glucose and postload insulin. With acarbose dosages higher than 50 mg t.i.d., the effect on GHb was the same, but the occurrence of side effects increased. Acarbose decreased the BMI by 0.17 kg/m<sup>2</sup> (95% CI 0.08-0.26). None of the AGIs had an effect on plasma lipids. Compared with sulfonylurea, AGIs seemed inferior with respect to glycemic control, but they reduced fasting and postload insulin levels. For comparisons with other agents, little data were available. CONCLUSIONS: We found no evidence for an effect on mortality or morbidity. AGIs have clear beneficial effects on glycemic control and postload insulin levels but not on plasma lipids. There is no need for dosages higher than 50 mg acarbose t.i.d.

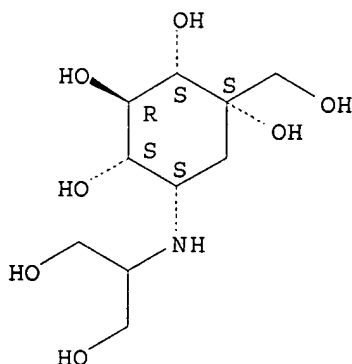
IT 83480-29-9, Voglibose

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (monotherapy with  $\alpha$ -glucosidase inhibitor voglibose had no effect on mortality, morbidity, plasma lipid level but had beneficial effect on glycemic control, postload insulin level, minor effect on body weight in type 2 diabetes patient)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

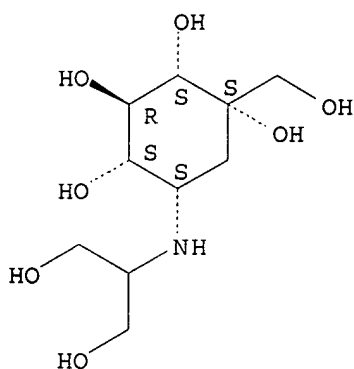
Absolute stereochemistry.



RE.CNT 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:93259 CAPLUS  
 DN 143:235655  
 TI Determination of voglibose in pharmaceutical preparations by gas chromatography  
 AU Lee, Jae-Yoon; Ahn, Moon-Kyu  
 CS Department of Pharmacy, Kyung Sung University, Pusan, 608-736, S. Korea  
 SO Yakhak Hoechi (2003), 47(6), 352-355  
 CODEN: YAHOA3; ISSN: 0377-9556  
 PB Pharmaceutical Society of Korea  
 DT Journal  
 LA Korean  
 AB Voglibose is a new antidiabetic agent currently being developed by the research and development division of Takeda chemical industries Ltd. in Japan. Basic research for the determination of voglibose in pharmaceutical preparation by gas chromatog. This method utilizes voglibose to give its acyl compound with acetyl anhydride in pyridine solution. The calibration curve for voglibose was linear over the concentration range of 0.08-0.32 µg/µl with correlation coefficient of 0.996. The detection limit for voglibose was 0.016 µg/µl and the result of recovery test was 101.6% with relative standard deviation of 2.0% by standard addition method.  
 IT 83480-29-9, Voglibose  
 RL: ANT (Analyte); ANST (Analytical study)  
 (determination of voglibose in pharmaceutical preps. by gas chromatog.)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 18 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:14212 CAPLUS  
 DN 142:107414  
 TI Compositions comprising balaglitazone and further antidiabetic compounds  
 IN Wassermann, Karsten; Wulff, Erik Max  
 PA Novo Nordisk A/S, Den.  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2005000299	A1	20050106	WO 2004-DK448	20040624

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004250994 A1 20050106 AU 2004-250994 20040624  
 CA 2530228 AA 20050106 CA 2004-2530228 20040624  
 EP 1638554 A1 20060329 EP 2004-738945 20040624

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRAI DK 2003-973 A 20030627  
 US 2003-483196P P 20030627  
 WO 2004-DK448 W 20040624

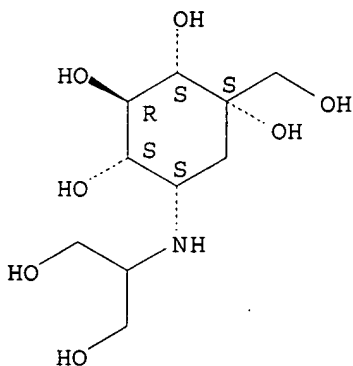
AB Methods for the treatment of type 2 diabetes and related conditions comprising the administration of balaglitazone in combination with one or more other antidiabetic compound is provided together with combinations useful in said treatment.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (comps. comprising balaglitazone and further antidiabetic compds.)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2005:14148 CAPLUS  
 DN 142:107413  
 TI Combination therapy for the treatment of dyslipidemia  
 IN Erondy, Ngozi E.; Fong, Tung M.; MacNeil, Douglas J.; Van Der Ploeg, Leonardus H. T.  
 PA Merck & Co., Inc., USA  
 SO PCT Int. Appl., 106 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2005000217 A2 20050106 WO 2004-US17120 20040602  
 WO 2005000217 A3 20050407  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG  
 EP 1635813 A2 20060322 EP 2004-753858 20040602  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
 US 2006148721 A1 20060706 US 2005-555194 20051101  
 PRAI US 2003-476387P P 20030606  
 WO 2004-US17120 W 20040602

OS MARPAT 142:107413

AB The invention relates to compns. comprising an anti-obesity agent and an anti-dyslipidemic agent useful for the treatment of dyslipidemia, dyslipidemia associated with obesity and dyslipidemia-related disorders. The invention further relates to methods of treating or preventing obesity, and obesity-related disorders, in a subject in need thereof by administering a composition of the present invention. The invention further provides pharmaceutical compns., medicaments, and kits useful in carrying out these methods.

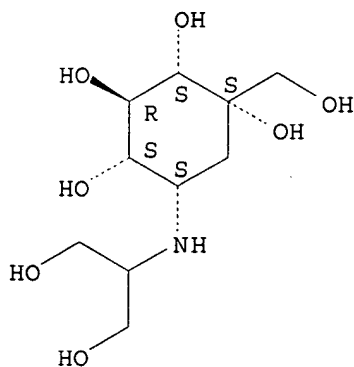
IT 83480-29-9, Voglibose

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (combination therapy for treatment of dyslipidemia)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 . ANSWER 20 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1154718 CAPLUS

DN 142:93672

TI Preparation of fused pyrrole derivatives as HLGPa inhibitors for the treatment of diabetes

IN Nakamura, Takeshi; Takagi, Masaki; Kiguchi, Toshihiro; Ikenogami, Taku; Ueda, Nobuhisa

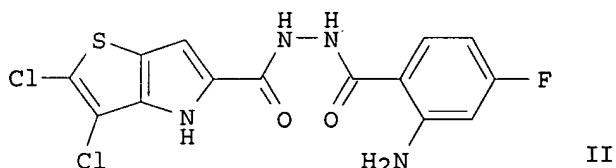
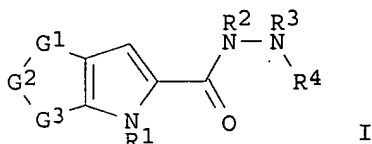
PA Japan Tobacco Inc., Japan

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004113345	A1	20041229	WO 2004-JP8917	20040618
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	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	JP 2003-177213	A	20030620		
OS	MARPAT 142:93672				
GI					



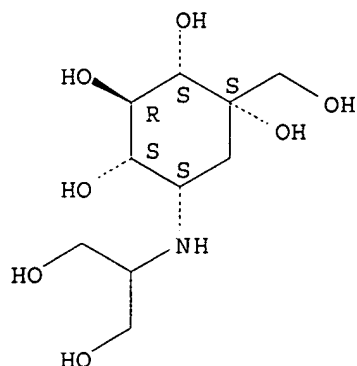
AB Title compds. represented by the formula I [wherein R1 = H or acyl; R2 = H or alkyl; R3 = H or alkyl; R4 = C(:X)AB; X = O, S, NH; A = (un)substituted amino, alkylene(amino), carbonyl or a single bond; B = (un)substituted Ph, pyridinyl, pyrimidinyl, cyclobutyl, etc.; G1 = CO, CS, CH2, G2 = O, CH2, (un)substituted amino; G3 = (un)substituted CH or amino; and their prodrugs, pharmaceutically acceptable salts thereof] were prepared as inhibitors of human liver glycogen phosphorylase A (HLGPa). For example, II was given in a multi-step synthesis starting from 2,3-dichlorothiophene. Most of I showed inhibition of HLGPa with IC50 values of less than 100 nM. Thus, I and their pharmaceutical compns. are useful as HLGPa inhibitors for the treatment of diabetes.

IT 83480-29-9, Voglibose  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(combination therapy agent; preparation of fused pyrrole derivs. as HLGPa inhibitors for treatment of diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 21 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:1124581 CAPLUS  
DN 142:69181  
TI Combination therapy for the treatment of hypertension  
IN Fong, Tung M.; Erondy, Ngozi E.; Macneil, Douglas J.; McIntyre, James H.;  
Van Der Ploeg, Leonardus H. T.  
PA Merck & Co., Inc., USA  
SO PCT Int. Appl., 99 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004110368	A2	20041223	WO 2004-US17090	20040602
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1635773	A2	20060322	EP 2004-753832	20040602
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	US 2006160834	A1	20060720	US 2005-559111	20051202
PRAI	US 2003-476390P	P	20030606		
	WO 2004-US17090	W	20040602		

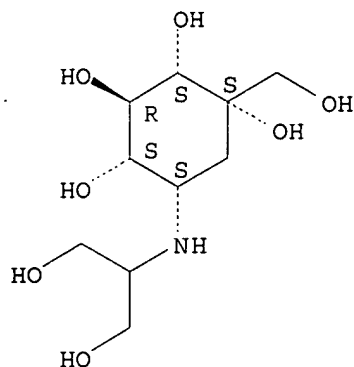
OS MARPAT 142:69181  
AB The present invention relates to compns. comprising an anti-obesity agent  
and an anti-hypertensive agent useful for the treatment of hypertension,  
hypertension associated with obesity, and hypertension-related disorders.  
The present invention further relates to methods of treating or  
preventing obesity, and obesity-related disorders, in a subject in need  
thereof by administering a composition of the present invention. The present  
invention further provides for pharmaceutical compns., medicaments, and  
kits useful in carrying out these methods.  
IT 83480-29-9, Voglibose  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)  
(combination therapy of hypertension and hypertension-related disorders  
using antiobesity agent and antihypertensive agent and other agents and

antihypertensive agent)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 22 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:905613 CAPLUS

DN 141:360699

TI Methods and therapeutic combinations for the treatment of diabetes using sterol absorption inhibitors

IN Davis, Harry R.; Kosoglou, Teddy; Picard, Gilles J.; Ress, Rudyard J.; Strony, John T.; Veltri, Enrico P.

PA Schering Corporation, USA

SO U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of U.S. Ser. No. 166,942. CODEN: USXXCO

DT Patent

LA English

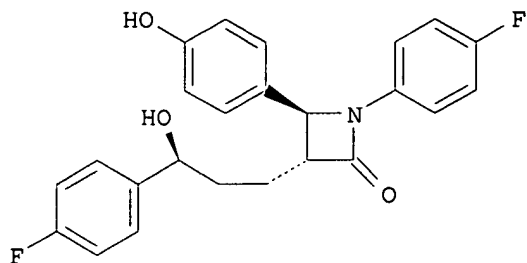
FAN.CNT 12

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 2004214811	A1	20041028	US 2002-247099	20020919
	US 7071181	B2	20060704		
	US 2002151536	A1	20021017	US 2002-57323	20020125
	EP 1413331	A2	20040428	EP 2004-161	20020125
	EP 1413331	A3	20040630		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	EP 1541175	A2	20050615	EP 2005-3029	20020125
	EP 1541175	A3	20060412		
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	US 2002192203	A1	20021219	US 2002-136968	20020501
	US 7030106	B2	20060418		
	US 2003105028	A1	20030605	US 2002-166942	20020611
	US 6982251	B2	20060103		
	ZA 2003005692	A	20041025	ZA 2003-5692	20030723
	ZA 2003005694	A	20041025	ZA 2003-5694	20030723
	ZA 2003005693	A	20050209	ZA 2003-5693	20030723
	US 2005153952	A1	20050714	US 2004-998400	20041129
PRAI	US 2001-264396P	P	20010126		
	US 2001-323839P	P	20010921		
	US 2001-323841P	P	20010921		
	US 2002-57323	A2	20020125		
	US 2002-166942	A2	20020611		
	US 2000-256875P	P	20001220		
	US 2001-264275P	P	20010126		



US 2001-264600P	P	20010126
US 2001-323842P	P	20010921
US 2001-23295	A2	20011217
EP 2002-707500	A3	20020125
EP 2002-714773	A3	20020125
US 2002-136968	A3	20020501

OS MARPAT 141:360699  
GI



AB The invention provides methods for treating diabetes and associated conditions by administering a composition including at least one sterol or 5 $\alpha$ -stanol absorption inhibitor or compns. or therapeutic combinations including: (a) at least one antidiabetic medication; and (b) at least one sterol or 5 $\alpha$ -stanol absorption inhibitor. Compds. of the invention include 2-azetidinone derivs. Preparation and testing of I (ezetimibe) are described.

IT 83480-29-9, Voglibose

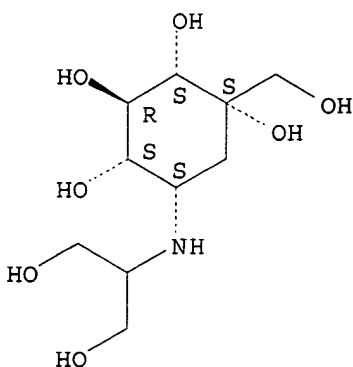
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sterol/5 $\alpha$ -stanol absorption inhibitors and combinations with antidiabetic agents for treatment of diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 23 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:878167 CAPLUS

DN 141:366227

TI Preparation of imidazolidin-2-one and oxazolidin-2-one derivatives as glucagon receptor antagonists/inverse agonists

IN Kurukulasuriya, Ravi; Link, James T.; Patel, Jyoti R.; Sorensen, Bryan K.

PA USA

SO U.S. Pat. Appl. Publ., 24 pp.

DT Patent  
LA English  
FAN.CNT 1

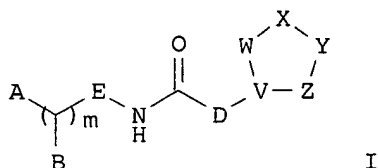
FAN.CNT 1

PATE

1 4 1 1 1 1

1 1 1 1 1 1

PI	US 2004209928	A1	20041021	US 2003-743954	20031223
PRAI	US 2002-437132P	P	20021230		
OS	MARPAT 141:366227				
GI					



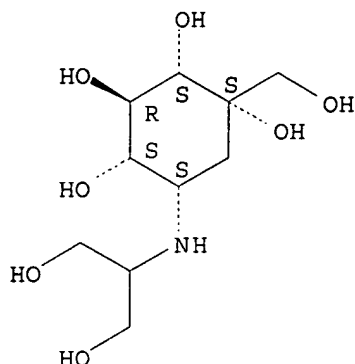
AB Compds. of formula (I) or pharmaceutically suitable salts, esters or prodrugs thereof, [wherein A = CO<sub>2</sub>H, tetrazole; B = H, F, OH, alkoxy, NRaRb (wherein Ra, Rb = H, alkyl, alkylcarbonyl, alkylsulfonyl, alkoxyalkyl, cycloalkyl, cycloalkylcarbonyl, cycloalkylsulfonyl, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heterocyclylcarbonyl, heterocyclesulfonyl); D = aryl, heteroaryl; E = (CH<sub>2</sub>)<sub>n</sub>; m, n = 0, 1, 2; V = C(Rc), N (wherein Rc = H, alkyl, alkoxy, alkoxyalkyl, cycloalkyl, cycloalkyloxy, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl); W = C(RdRe), (Rd)N, O, S, S(O), S(O)<sub>2</sub>; X = C(O), C(O)C(RfRg), C(RfRg)C(O), C(S), C(RfRg), C(RfRg)C(RiRj), C:N(Rj), S(O), S(O)<sub>2</sub>; Y = C(RkRm), (Rk)N, O, S, S(O), S(O)<sub>2</sub>; Z = a bond, C(RpRq), C(RpRq)C(RsRt); Rd, Re, Rf, Rg, Ri, Rj, Rk, Rm, Rp, Rq, Rs, Rt = H, alkyl, alkoxy, alkoxyalkyl, aryl, arylalkyl, aryloxy, arylalkoxy, cycloalkyl, cycloalkylalkyl, cycloalkyloxy, cycloalkylalkyl, heterocyclyl, heterocyclylalkyl, heterocycliloxy, heterocyclylalkoxy] are prepared These compds. are novel glucagon receptor antagonists or inverse agonists and are useful for treating (1) type 2 diabetes in a mammal, (2) symptoms related to type 1 or type 2 diabetes in a mammal wherein said symptoms are selected from the group consisting of hyperglycemia, hyperinsulinemia, inadequate glucose clearance, obesity, hyperlipidemia, lipid metabolism disorders and hypertension, and (3) diabetes or syndrome X in a mammal. Thus, 3-[4-[1-(4-tert-butylcyclohexylamino)-2-(tert-butyltrimethylsilyloxy)ethyl]benzoylamino]propionic acid Et ester underwent addition reaction with 4-(trifluoromethoxy)phenyl isocyanate in THF at ambient temperature for 12 h to give 3-[4-[1-[N-(4-tert-butylcyclohexyl)-N'-(4-trifluoromethoxyphenyl)ureido]-2-(tert-butyltrimethylsilyloxy)ethyl]benzoylamino]propionic acid Et ester (II). Desilylation of II with Bu<sub>4</sub>NF in THF at 0° for 30 min gave 3-[4-[1-[N-(4-tert-Butylcyclohexyl)-N'-(4-trifluoromethoxyphenyl)ureido]-2-hydroxyethyl]benzoylamino]propionic acid Et ester which was cyclized by treatment with polymer supported triphenylphosphine (0.146 g, 0.44 mmol) followed by di-Et azodicarboxylate, saponification with NaOH in aqueous MeOH, and acidification with 1 N aqueous HCl to give N-[4-[3-(4-tert-butylcyclohexyl)-2-oxo-1-[4-(trifluoromethoxy)phenyl]imidazolidin-4-yl]benzoyl]-β-alanine. The compds. I were found to inhibit glucagon-stimulated cAMP prodn. at a concentration of 20 μM a range of about 50 to approx.100%.

IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antidiabetic agent, coadministration; preparation of imidazolidin-2-one and oxazolidin-2-one derivs. as glucagon receptor antagonists/inverse agonists for treating type II diabetes or symptoms related to type 1 or 2 diabetes)

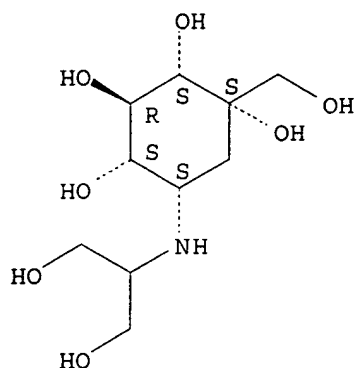
RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 24 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:581402 CAPLUS  
 DN 141:260973  
 TI Determination of the structures of four new isomeric cyclitols  
 AU Zhang, Hong; Sun, Cui-Rong; Ishurd, Omar; Pan, Yuan-Jiang; Ding, Li-Sheng  
 CS Department of Chemistry, Zhejiang University, Hang Zhou, 310027, Peop.  
 Rep. China  
 SO Carbohydrate Research (2004), 339(11), 2027-2030  
 CODEN: CRBRAT; ISSN: 0008-6215  
 PB Elsevier  
 DT Journal  
 LA English  
 AB A series of impurities, which were all of the same mol. formula, C<sub>17</sub>H<sub>33</sub>N<sub>7</sub>O<sub>7</sub>, were obtained in the process of voglibose synthesis. After isolation and purification, four isomeric cyclitols were completely assigned by 2D NMR expts. One of the compds. was established by single-crystal X-ray diffraction anal. as 5,6-dideoxy-5-{[2-hydroxy-1-(hydroxymethyl)ethyl]amino}-1-C-(methoxycyclohexylmethyl)-D-epi-inositol.  
 IT 83480-29-9P, Voglibose  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)  
 (2D NMR mol. structure determination of the impurities obtained in the synthesis of voglibose)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 25 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:392082 CAPLUS  
DN 140:380681  
TI Nutritional supplement containing alpha-glucosidase and alpha-amylase inhibitors  
IN Murray, Mary A.; Roufs, James B.; Roh-Schmidt, Haeri  
PA USA  
SO U.S. Pat. Appl. Publ., 8 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004091554	A1	20040513	US 2002-290079	20021107
	JP 2004154126	A2	20040603	JP 2003-184272	20030627
	JP 3793764	B2	20060705		
	KR 2004041026	A	20040513	KR 2003-78232	20031106
	CN 1498659	A	20040526	CN 2003-10103807	20031106
	US 2005208161	A1	20050922	US 2005-131538	20050518
PRAI	US 2002-290079	A	20021107		

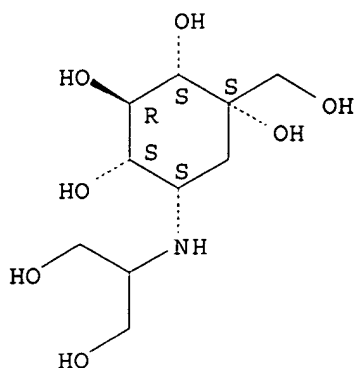
AB A nutritional supplement composition contains inhibitors of  $\alpha$ -glucosidase and  $\alpha$ -amylase substantially in the absence of lipase inhibitors. The composition can include touchi extract and phaseolamin as the  $\alpha$ -glucosidase and  $\alpha$ -amylase inhibitor, resp. A method of limiting the absorption of carbohydrates contained in a foodstuff includes administering the nutritional supplement composition prior to consumption of the carbohydrates, and a method of promoting weight loss in an individual includes administering the nutritional supplement composition to the individual over a period of days. A tablet contained microcryst. cellulose 40.71, Touchi (soybean extract) 19.93, croscarmellose sodium 2.37, phaseolamin 31.56, stearic acid 3.79, silica 0.76, and organic parsley 1.89 %.

IT 83480-29-9, Voglibose  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(nutritional supplements containing inhibitors of  $\alpha$ -glucosidase and  $\alpha$ -amylase for weight loss)

RN 83480-29-9 CAPLUS

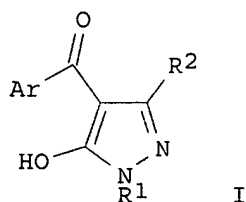
CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 26 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:333698 CAPLUS  
 DN 140:357333  
 TI Preparation of aroylhydroxypyrazoles for treatment of metabolic disorders  
 IN Semple, Graeme; Shin, Young Jun  
 PA Arena Pharmaceuticals, Inc., USA  
 SO PCT Int. Appl., 125 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004033431	A2	20040422	WO 2003-US31509	20031002
WO 2004033431	A3	20040729		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003282679	A1	20040504	AU 2003-282679	20031002
PRAI US 2002-416193P	P	20021004		
US 2002-417120P	P	20021007		
WO 2003-US31509	W	20031002		
OS MARPAT 140:357333				
GI				



AB Title compds. [I; R1 = alkyl, haloalkyl, cycloalkyl, alkenyl, alkynyl, benzyl, optionally substituted with  $\geq 1$  halo, OH, cyano, NO2, haloalkyl, amino, aminoalkyl, aminodialkyl, alkyl, cycloalkyl, alkoxy, phenoxy, alkenyl, alkynyl, haloalkoxy, carboxy, carboalkoxy, alkylcarboxamido, arylcarboxamido, heteroarylcarboxamido, heterocyclic

carboxamido, alkylthio, alkylsulfinyl, alkylsulfonyl, haloalkylthio, haloalkylsulfinyl, haloalkylsulfonyl, alkylureyl, arylureyl; R2 = H, alkyl, haloalkyl, cycloalkyl, alkenyl, alkynyl, PhCH2, Ph, heteroaryl, optionally substituted with  $\geq 1$  halo, OH, cyano, nitro, haloalkyl, amino, aminoalkyl, aminodialkyl, alkyl, cycloalkyl, alkoxy, phenoxy, alkenyl, alkynyl, haloalkoxy, carboxy, carboalkoxy, alkylcarboxamido, arylcarboxamido, heteroarylcarboxamido, heterocyclic carboxamido, alkylthio, alkylsulfinyl, alkylsulfonyl, haloalkylthio, haloalkylsulfinyl, haloalkylsulfonyl, alkylureyl or arylureyl groups; Ar = (substituted) pyridyl, pyrimidinyl, pyrazinyl, pyridazinyl], were prepared for the treatment of metabolic-related disorders, including dyslipidemia, atherosclerosis, coronary heart disease, insulin resistance, type 2 diabetes, Syndrome-X and the like (no data). Thus, nicotinyl chloride, 2-methyl-5-propyl-2,4-dihydropyrazol-3-one, and Ca(OH)<sub>2</sub> were heated at 90° in dioxane for 2 h. to give (5-hydroxy-1-methyl-3-propyl-1H-pyrazol-4-yl)pyridin-3-ylmethanone. I may be used in combination with other active agents such  $\alpha$ -glucosidase inhibitors, aldose reductase inhibitors, biguanides, HMG-CoA reductase inhibitors, squalene synthesis inhibitors, fibrates, LDL catabolism enhancers, angiotensin converting enzyme inhibitors, and insulin secretion enhancers.

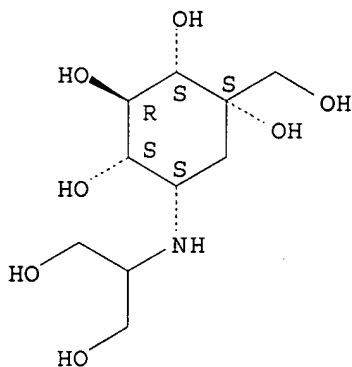
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(coadministration; preparation of aroylhydroxypyrazoles for treatment of metabolic disorders)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 27 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:145230 CAPLUS

DN 141:218619

TI Rationale and design of a large-scale trial using nicorandil as an adjunct to percutaneous coronary intervention for ST-segment elevation acute myocardial infarction: Japan-working groups of acute myocardial infarction for the reduction of necrotic damage by a K-ATP channel opener (J-WIND-KATP)

AU Minamino, Tetsuo; Kim, Jiyoung; Asakura, Masanori; Shintani, Yasunori; Asanuma, Hiroshi; Kitakaze, Masafumi

CS J-WIND Investigators, Japan Foundation for Aging and Health for Medical Frontier Strategy Research by Health and Labor Sciences Research Grants, National Cardiovascular Center, Suita, Japan

SO Circulation Journal (2004), 68(2), 101-106  
CODEN: CJIOBY; ISSN: 1346-9843

PB Japanese Circulation Society

DT Journal

LA English

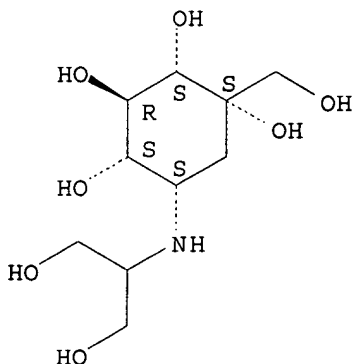
AB Background: The benefits of percutaneous coronary intervention (PCI) in acute myocardial infarction (AMI) are limited by reperfusion injury. In animal models, nicorandil, a hybrid of an ATP-sensitive K<sup>+</sup> (KATP) channel opener and nitrates, reduces infarct size, so the Japan-Working groups of acute myocardial Infarction for the reduction of Necrotic Damage by a K-ATP channel opener (J-WIND-KATP) designed a prospective, randomized, multicenter study to evaluate whether nicorandil reduces myocardial infarct size and improves regional wall motion when used as an adjunctive therapy for AMI. Methods and Results: Twenty-six hospitals in Japan are participating in the J-WIND-KATP study. Patients with AMI who are candidates for PCI are randomly allocated to receive either i.v. nicorandil or placebo. The primary end-points are (1) estimated infarct size and (2) left ventricular function. Single nucleotide polymorphisms (SNPs) that may be associated with the function of KATP-channel and the susceptibility of AMI to the drug will be examined. Furthermore, a data mining method will be used to design the optimal combined therapy for post-myocardial infarction (MI) patients. Conclusions: It is intended that J-WIND-KATP will provide important data on the effects of nicorandil as an adjunct to PCI for AMI and that the SNPs information that will open the field of tailor-made therapy. The optimal therapeutic drug combination will also be determined for post-MI patients.

IT 83480-29-9, Voglibose  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (nicorandil and cardiovascular agent for decreasing risk of cardiac events in patients with post-myocardial infarction)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 28 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:145229 CAPLUS

DN 141:219275

TI Rationale and design of a large-scale trial using atrial natriuretic peptide (ANP) as an adjunct to percutaneous coronary intervention for ST-segment elevation acute myocardial infarction: Japan-working groups of acute myocardial infarction for the reduction of necrotic damage by ANP (J-WIND-ANP)

AU Asakura, Masanori; Kim, Jiyoong; Minamino, Tetsuo; Shintani, Yasunori; Asanuma, Hiroshi; Kitakaze, Masafumi

CS J-WIND Investigators, Japan Society for the Promotion of Science for Young Scientists, Osaka University Graduate School of Medicine, Suita, Japan

SO Circulation Journal (2004), 68(2), 95-100  
 CODEN: CJIOBY; ISSN: 1346-9843

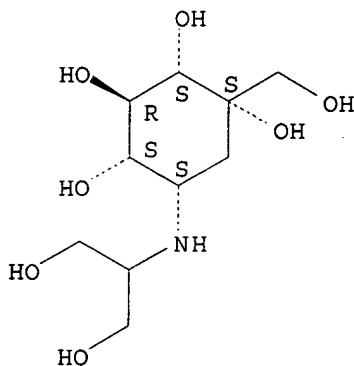
PB Japanese Circulation Society

DT Journal  
 LA English  
 AB Background: The benefits of percutaneous coronary intervention (PCI) in acute myocardial infarction (AMI) are limited by reperfusion injury. In animal models, atrial natriuretic peptide (ANP) reduces infarct size, so the Japan-Working groups of acute myocardial Infarction for the reduction of Necrotic Damage by ANP (J-WIND-ANP) designed a prospective, randomized, multicenter study, to evaluate whether ANP as an adjunctive therapy for AMI reduces myocardial infarct size and improves regional wall motion. Methods and Results: Twenty hospitals in Japan will participate in the J-WIND-ANP study. Patients with AMI who are candidates for PCI are randomly allocated to receive either i.v. ANP or placebo administration. The primary end-points are (1) estimated infarct size ( $\Sigma$ -creatine kinase and troponin T) and (2) left ventricular function (left ventriculograms). Single nucleotide polymorphisms (SNPs) that may be associated with the function of ANP and susceptibility of AMI will be examined. Furthermore, a data mining method will be used to design the optimal combinational therapy for post-MI patients. Conclusions: J-WIND-ANP will provide important data on the effects of ANP as an adjunct to PCI for AMI and the SNPs information will open the field of tailor-made therapy. The optimal therapeutic drug combination will also be determined for post-MI patients.

IT 83480-29-9, Voglibose  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (drug therapy for data mining of cardiovascular therapy combination; large-scale trial rationale and design using atrial natriuretic peptide (ANP) as adjunct to PCI for ST-segment elevation acute myocardial infarction patients)

RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 29 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:19904 CAPLUS  
 DN 140:65242  
 TI Rapidly disintegrating solid preparations of  $\alpha$ -glucosidase inhibitors and their manufacture  
 IN Okochi, Kazuhiro; Koyama, Hiroyoshi  
 PA Takeda Chemical Industries, Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese



FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004002326	A2	20040108	JP 2003-77049	20030320
PRAI	JP 2002-81465	A	20020322		

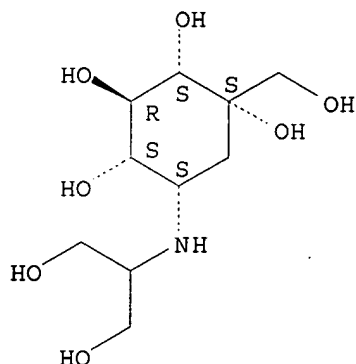
AB The preps. for treatment of diabetes contain  $\alpha$ -glucosidase inhibitors, carbohydrates, hydroxypropyl cellulose (I), disintegrants, and crystalline cellulose (II). The preps. are manufactured by granulating a mixture of carbohydrates, disintegrants, and II while spraying an aqueous solution of  $\alpha$ -glucosidase inhibitors and I. This method gives rapidly-disintegrating preps. having moderate hardness with reduced loss of  $\alpha$ -glucosidase inhibitors during manufacture. A mixture of D-mannitol 510.5, crystalline II 66, crospovidone 33, and corn starch 15 g was granulated while spraying an aqueous solution containing voglibose 0.9, I 3.3, and yellow Fe<sub>2</sub>O<sub>3</sub> 0.75 g. The granules (524.5 g) thus obtained were mixed with 20 g corn starch and 5.5 g Mg stearate and compressed to give tablets (220 mg/tablet). The tablets showed hardness 33.2 N and disintegration time 0.3-0.4 min.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (manufacture of rapidly disintegrating solid preps. of  $\alpha$ -glucosidase inhibitors containing carbohydrates, hydroxypropyl cellulose, disintegrants, and crystalline cellulose)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 30 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:3643 CAPLUS

DN 140:71537

TI Uses of polypeptides acting as both GLP-1 receptor agonists and glucagon receptor antagonists in the treatment of diabetes and other metabolic diseases

IN Pan, Clark; Whelan, James; Clairmont, Kevin B.

PA Bayer Pharmaceuticals Corporation, USA

SO U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part of U.S. Ser. No. 265,345.  
 CODEN: USXXCO

DT Patent

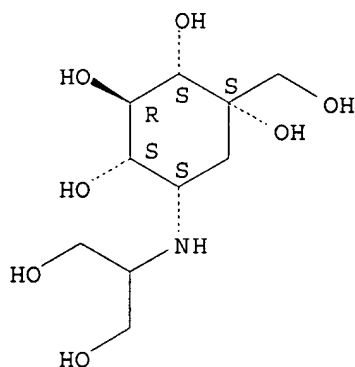
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004002442	A1	20040101	US 2003-345751	20030116
	US 7041646	B2	20060509		
	US 2003124669	A1	20030703	US 2002-265345	20021003

US	6864069	B2	20050308		
US	2005153890	A1	20050714	US 2004-999622	20041129
US	2005288248	A1	20051229	US 2005-212439	20050826
US	2006003934	A1	20060105	US 2005-213023	20050826
US	2006003935	A1	20060105	US 2005-213024	20050826
US	2006003417	A1	20060105	US 2005-213026	20050826
US	2006003418	A1	20060105	US 2005-213083	20050826
US	2006003419	A1	20060105	US 2005-213087	20050826
PRAI	US 2001-327730P	P	20011005		
	US 2002-265345	A2	20021003		
	US 2002-408288P	P	20020906		
	US 2003-345751	A3	20030116		
AB	The invention provides polypeptides that act both as an agonist of the GLP-1 receptor and an antagonist of the glucagon receptor. Such polypeptides are useful for treating individuals with type 2 diabetes or other metabolic disorders.				
IT	83480-29-9, Voglibose				
	RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(co-administered with the polypeptide; polypeptides acting as both GLP-1 receptor agonists and glucagon receptor antagonists and their pharmacol. methods of use)				
RN	83480-29-9 CAPLUS				
CN	D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L5 ANSWER 31 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:777746 CAPLUS  
 DN 139:277115  
 TI Process for preparation of voglibose  
 IN Shogaki, Takeshi; Kakita, Takao; Yagi, Suguru  
 PA Sawai Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003080561	A1	20031002	WO 2002-JP10687	20021015
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002344083	A1	20031008	AU 2002-344083	20021015
US 2005165257	A1	20050728	US 2003-509059	20021015
PRAI JP 2002-88321	A	20020327		
WO 2002-JP10687	W	20021015		
OS CASREACT 139:277115; MARPAT 139:277115				
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention provides a process by which voglibose can be safely and easily prepared at a low cost; intermediates favorably usable in the process; and a process for preparation of the intermediates, specifically, inositol derivs. represented by the general formula (I) (wherein Prt is a hydroxyl-protecting group); a process for the preparation of the inositol derivs. which comprises dihydroxyaminating a cyclohexanone compound represented by the general formula (II) (wherein Prt is as defined above) with a dihydroxyaminating agent and a reducing agent; and a process for the preparation of voglibose represented by formula (III) which comprises oxidizing an inositol derivative of the general formula I and deblocking the resulting inositol compound Voglibose is an  $\alpha$ -glucosidase inhibitor and useful for the treatment of diabetes. Thus, a suspension of 2.0 g Me 6-deoxy-2,3,4-tri-O-benzyl- $\alpha$ -D-xylo-5-hexenopyranoside in a mixture of 60 mL dioxane and 30 mL H<sub>2</sub>O was heated in the presence of 39 mg PdCl<sub>2</sub> at 45° with stirring to give, after workup and crystallization from hexane, 72.4% [2S-(2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5 $\alpha\beta$ )]-5-hydroxy-2,3,4-tris(benzyloxy)cyclohexanone, (IV) which (4.33 g) was dissolved in 90 mL toluene, cooled to -78°, treated dropwise with a THF solution of 1.0 M vinylmagnesium bromide (50 mL), stirred at -78° for 2 h and at room temperature for 1 h, and carefully treated with 100 mL 1 M aqueous HCl solution, to give after workup and silica gel chromatog., a mixture of 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-epi-inositol and 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-myo-inositol (V) in 65.8% yield. V (2.99 g) was dissolved in 15 mL DMSO and 5.43 mL Et<sub>3</sub>N, treated dropwise with a solution of 3.10 g sulfur trioxide-pyridine complex in 15 mL DMSO, stirred at room temperature for 1 h to give, after workup and silica gel chromatog., 83.7% II (Prt = benzyl) which (1.50 g) was stirred with 2-amino-1,3-propanediol in 25 mL dry MeOH at room temperature for 20 h, treated with 742 mg NaBH<sub>4</sub> under ice-cooling, and stirred at room temperature for 16 h to give, after workup and silica gel chromatog., 72.6% III (Prt = benzyl) (VI). A solution of 700 mg VI in 30 mL CH<sub>2</sub>Cl<sub>2</sub>/MeOH (4/1) underwent ozonolysis at -78° for .apprx.4 h, treated with 198 mg NaBH<sub>4</sub>, stirred at room temperature for 1 h, and acidified to pH 4 by adding 1 M aqueous HCl solution to give, after silica gel chromatog., 85.5% I (Prt = benzyl) which (100 mg) was dissolve din 1.9 mL MeOH, successively treated with 0.1 mL 90% formic acid and 20 mg palladium black, stirred at 60° for 6 h, and suction-filtered to remove the catalyst followed by washing the catalyst with 3 mL MeOH/H<sub>2</sub>O (1/1). Evaporation of the combined solvent from the filtrate and the washing under reduced pressure, column chromatog. purification using Dowex 50WX8 and Amberlite CG-50, and crystallization from ethanol gave 65.0% III (voglibose).

IT 83480-29-9P, Voglibose  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

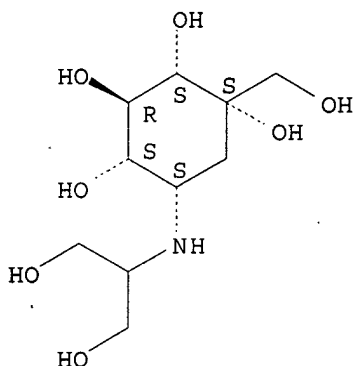
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(preparation of voglibose as  $\alpha$ -glucosidase inhibitor for  
treatment of diabetes in multisteps from Me 6-deoxy-2,3,4-tri-O-benzyl-  
 $\alpha$ -D-xylo-5-hexenopyranoside)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 32 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:757550 CAPLUS

DN 139:255382

TI Methods of treating diabetes using PDE11a inhibitors

IN Vasavada, Haren

PA Bayer Pharmaceuticals Corporation, USA

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003077949	A2	20030925	WO 2003-US8132	20030314
	WO 2003077949	A3	20040325		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA	2477832	AA	20030925	CA 2003-2477832	20030314
AU	2003220342	A1	20030929	AU 2003-220342	20030314
EP	1496940	A2	20050119	EP 2003-716641	20030314
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR	2003008415	A	20050215	BR 2003-8415	20030314
JP	2005527524	T2	20050915	JP 2003-576002	20030314
CN	1697661	A	20051116	CN 2003-805986	20030314
US	2005215489	A1	20050929	US 2004-504695	20040812
ZA	2004008185	A	20051011	ZA 2004-8185	20041011

PRAI US 2002-364697P P 20020314  
US 2002-389036P P 20020613  
WO 2003-US8132 W 20030314

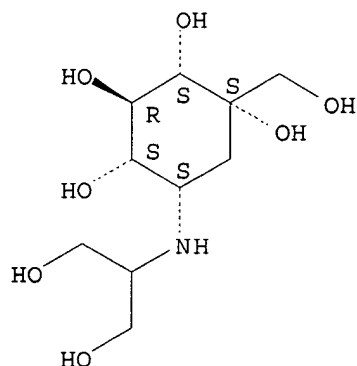
AB Methods of the invention relate to treatment of diabetes, particularly type 2 diabetes, and related disorders by administration of a PDE11A inhibitor. Such PDE11A inhibitors may be administered in conjunction with alpha-glucosidase inhibitors, insulin sensitizers, insulin secretagogues, hepatic glucose output lowering compds., beta3 agonist or insulin. Such PDE11A inhibitors may also be administered in conjunction with body weight reducing agents. Further methods of the invention relate to stimulating insulin release from pancreatic cells, particularly in response to an elevation in blood glucose concentration, by administration of a PDE11A inhibitor.

IT 83480-29-9, Voglibose  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(methods of treating diabetes using PDE11a inhibitors)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 33 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:386729 CAPLUS

DN 138:402036

TI Preparation of valioline and its intermediates

IN Masagaki, Takeshi; Yagi, Takashi; Kakita, Takao

PA Sawai Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

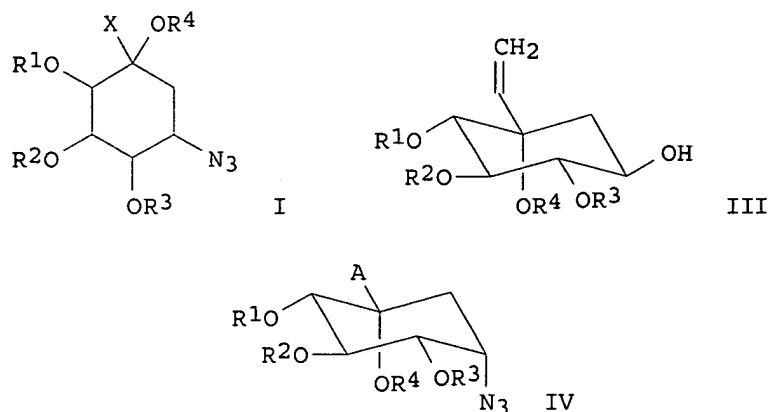
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003146957	A2	20030521	JP 2001-345259	20011109
PRAI	JP 2001-345259		20011109		
OS	MARPAT 138:402036				
GI					



AB Cyclohexane derivs. I (R1-R4 = H, protective group; X = CH:CH2, CH2OH), useful as intermediates for valiolumine (II), are claimed. Also claimed is a method for preparation of II by (1) azidation of alc. III (R1-R4 = H, protective group), (2) oxidation of the resulting IV (A = CH:CH2; R1-R4 = same as in III), and (3) reduction of the resulting IV (A = CH2OH; R1-R4 = same as above). Preparation of II from Me 6-deoxy-2,3,4-tris-O-(phenylmethyl)- $\alpha$ -D-xylo-5-hexenopyranoside with 5 steps was shown. Preparation of voglibose from II was also shown.

IT 83480-29-9P, Voglibose

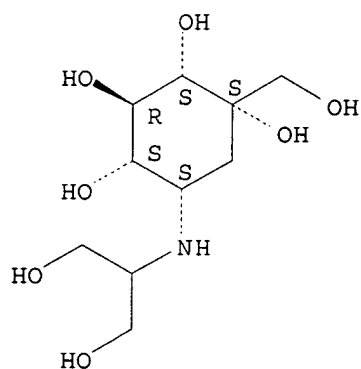
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

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(preparation of valiolumine as intermediate for voglibose from
deoxyethenylmyoinositols)
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RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 34 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:261846 CAPLUS

DN 138:271665

TI Preparation of 1,6-naphthyridine derivatives as antidiabetics

IN Wang, Yamin; Bullock, William H.; Chen, Libing

PA Bayer Corporation, USA

SO PCT Int. Appl., 357 pp.

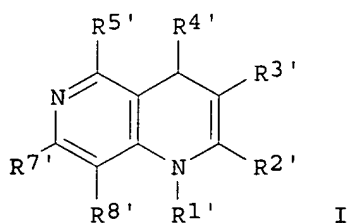
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003027113	A1	20030403	WO 2002-US30376	20020923
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2463039	AA	20030403	CA 2002-2463039	20020923
	US 6677352	B1	20040113	US 2002-253215	20020923
	US 2004014751	A1	20040122	US 2002-253104	20020923
	US 6900205	B2	20050531		
	EP 1432711	A1	20040630	EP 2002-799627	20020923
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002012864	A	20040817	BR 2002-12864	20020923
	CN 1578780	A	20050209	CN 2002-823019	20020923
	CN 1578781	A	20050209	CN 2002-823021	20020923
	JP 2005504808	T2	20050217	JP 2003-530701	20020923
	US 2004157875	A1	20040812	US 2003-684299	20031010
	US 6964971	B2	20051115		
	NO 2004001560	A	20040511	NO 2004-1560	20040416
	ZA 2004003063	A	20050422	ZA 2004-3063	20040422
	ZA 2004003064	A	20050422	ZA 2004-3064	20040422
	US 2004209866	A1	20041021	US 2004-834357	20040428
PRAI	US 2001-324511P	P	20010926		
	US 2002-253104	A3	20020923		
	US 2002-253215	A1	20020923		
	WO 2002-US30376	W	20020923		
OS	MARPAT 138:271665				
GI					

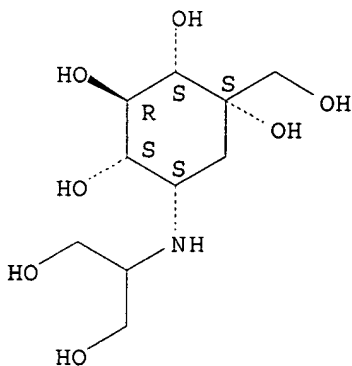


AB The invention relates generally to naphthyridines and more specifically, to 1,6-naphthyridines (shown as I; variables defined below; e.g. 2-anilino-5-chloro-7-methyl-1-phenyl-1,6-naphthyridin-4(1H)-one) and pharmaceutical comps. containing such derivs. Methods of the invention comprise administration of a naphthyridine derivative of the invention for the treatment of diabetes and related disorders. A typical pos. effect of a compound results in a 12-20% reduction in the glucose AUC relative to the AUC of the vehicle-treated group of male Wistar rats; comps. of present invention have a blood glucose lowering effect in this in vivo assay. Although the methods of preparation are not claimed, .apprx.50 example preps. of naphthyridines, mostly 1,8-naphthyridin-4(1H)-ones, plus example preps. of intermediates are included; characterization data for a large number of 1,6- and 1,8-naphthyridin-4(1H)-ones are also included. For I: R1' = C1-8 alkyl, C2-8 alkenyl, C2-8 alkynyl, and A-R9, or R1' = C6-10 aryl, C2-9 heteroaryl with 1-4 heteroatoms = N, S(O)0-2 and

IT 83480-29-9, Voglibose

RN 83480-29-9 CAPLUS

Absolute stereochemistry.



L5 ANSWER 35 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:261845 CAPLUS

DN 138:271664

TI Preparation of 1,8-naphthyridine derivatives as antidiabetics

IN Wang, Yamin; Gunn, David E.; Liu, Qingjie; Liang, Sidney X.; Bullock,  
William H.; Liu, Donglei; Magnuson, Steven R.; Li, Tindy; Mull, Eric S.;  
Wood, Jill E.; Qi, Ning

PA Bayer Corporation, USA

SO PCT Int. Appl., 363 pp.

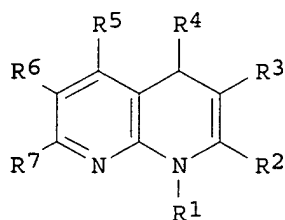
CODEN: PIXXD2

DT Patent



LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003027112	A1	20030403	WO 2002-US30176	20020923
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	CA 2461132	AA	20030403	CA 2002-2461132	20020923
	US 6677352	B1	20040113	US 2002-253215	20020923
	US 2004014751	A1	20040122	US 2002-253104	20020923
	US 6900205	B2	20050531		
	EP 1432710	A1	20040630	EP 2002-799608	20020923
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002012829	A	20040803	BR 2002-12829	20020923
	CN 1578780	A	20050209	CN 2002-823019	20020923
	CN 1578781	A	20050209	CN 2002-823021	20020923
	JP 2005504807	T2	20050217	JP 2003-530700	20020923
	US 2004157875	A1	20040812	US 2003-684299	20031010
	US 6964971	B2	20051115		
	NO 2004001567	A	20040511	NO 2004-1567	20040416
	ZA 2004003063	A	20050422	ZA 2004-3063	20040422
	ZA 2004003064	A	20050422	ZA 2004-3064	20040422
	US 2004209866	A1	20041021	US 2004-834357	20040428
PRAI	US 2001-324511P	P	20010926		
	US 2002-253104	A3	20020923		
	US 2002-253215	A1	20020923		
	WO 2002-US30176	W	20020923		
OS	MARPAT 138:271664				
GI					



AB The invention relates generally to naphthyridines and more specifically, to 1,8-naphthyridines (shown as I; variables defined below; e.g. 2-anilino-1,7-diphenyl-5-(trifluoromethyl)-1,8-naphthyridin-4(1H)-one) and pharmaceutical compns. containing such derivs. Methods of the invention comprise administration of a naphthyridine derivative of the invention for the treatment of diabetes and related disorders. A typical pos. effect of a compound results in a 12-20% reduction in the glucose AUC relative to the AUC of the vehicle-treated group of male Wistar rats; compds. of present invention have a blood glucose lowering effect in this in vivo assay. Although the methods of preparation are not claimed, .apprx.50 example prepsns. of naphthyridines, mostly 1,8-naphthyridin-4(1H)-ones but also some 1,6-naphthyridin-4(1H)-ones, plus example prepsns. of intermediates are included; characterization data for a large number of 1,6-

and 1,8-naphthyridin-4(1H)-ones are also included. The examples section appears to be identical to that of patent WO 03/027113 A1 (CAPLUS accession number 2003:261846). For I: R1 = C1-8 alkyl, C2-8 alkenyl, C2-8 alkynyl, and A-R9, or R1 = C6-10 aryl, C2-9 heteroaryl with 1-4 heteroatoms = N, S(O)0-2 and O, C3-8 cycloalkyl, C4-8 cycloalkenyl, 5-7 membered heterocycloalkyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O, and 5-7 membered heterocycloalkenyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O. A = C1-8 alkyl, C2-8 alkenyl, C2-8 alkynyl, and C1-8 haloalkyl; R9 = hydroxy, C1-6 alkoxy, C3-6 cycloalkoxy, O-A-R14, NR11R12; or R9 = C6-10 aryl, C2-9 heteroaryl with 1-4 heteroatoms = N, S(O)0-2 and O, C3-8 cycloalkyl, C5-8 cycloalkenyl or R9 = 5-7 membered heterocycloalkyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O and 5-7 membered heterocycloalkenyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O. R2 = NR15R16, S(O)0-2R17, and OR17. R3 = C6-10 aryl, C2-9 heteroaryl with 1-4 heteroatoms = N, S(O)0-2 and O, C3-8 cycloalkyl, heterocycloalkyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2, and O, C4-8 cycloalkenyl, and heterocycloalkenyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O; or R3 = C1-6 alkyl, C2-6 alkenyl, C2-6 alkynyl, C1-6 haloalkyl, H, nitro, halogen, NR19R20, A-OR19, A-NR19R20, and A-R20. R4 = O, S, and OR21. R5, R6 and R7 = C3-8 cycloalkyl, C4-8 cycloalkenyl, C6-10 aryl, C2-9 heteroaryl with 1-4 heteroatoms or R5, R6 and R7 = 5-7 membered heterocycloalkyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O and 5-7 membered heterocycloalkenyl with 3-6 C atoms and 1-2 heteroatoms = N, S(O)0-2 and O or R5, R7, and R8 = H, halogen, nitrile, nitro, hydroxy, C1-8 alkyl, C2-8 alkenyl, C2-8 alkynyl, C1-8 haloalkyl, C1-8 alkoxy, C1-8 haloalkoxy, C3-8 cycloalkoxy, A-R23, A(OR22)R23, NR27R28, A-NR27R28, A-Q-R29, Q-R29, Q-A-NR24R25, C(O)R24, C(O)OR24, C(O)NR24R25, A-C(O)R24, A-C(O)OR24, and A-C(O)NR24R25; addnl. definitions and provisos are given in the claims.

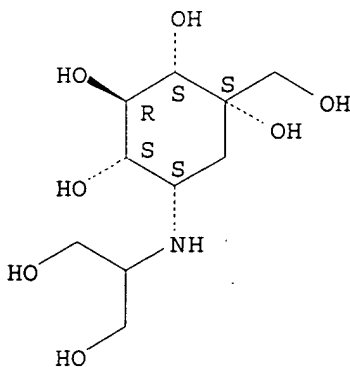
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -glucosidase inhibitor; combined with 1,8-naphthyridines as antidiabetics)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 36 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:42064 CAPLUS

DN 138:95600

TI Use of antidiabetics for making a medicine with cicatrizing effect

IN Briet, Philippe

PA Merck Sante, Fr.

SO PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003003971	A2	20030116	WO 2002-FR2124	20020619
	WO 2003003971	A3	20031204		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	FR 2826278	A1	20021227	FR 2001-8130	20010620
	FR 2826278	B1	20050325		
	AU 2002319381	A1	20030121	AU 2002-319381	20020619
	EP 1397124	A2	20040317	EP 2002-748965	20020619
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004147430	A1	20040729	US 2003-479615	20031204
PRAI	FR 2001-8130	A	20010620		
	US 2001-299196P	P	20010620		
	WO 2002-FR2124	W	20020619		

OS MARPAT 138:95600

AB The invention concerns the use of at least an antidiabetic selected among compds. stimulation insulin secretion, glucosidase inhibitors, thiazolidine-diones, insulin, agents enhancing insulin sensitivity, the glucagon-like peptide-1 (GLP-1), PPAR $\alpha/\gamma$  agonists, meglitinide and  $\alpha$ 2 inhibitors for making a medicine with cicatrizing effect.

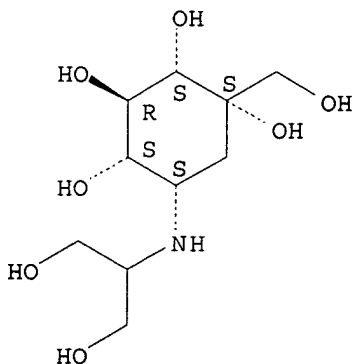
IT 83480-29-9, Voglibose

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(use of antidiabetics for making medicine with cicatrizing effect)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AN 2002:888532 CAPLUS  
DN 137:358192  
TI Rapidly disintegratable solid preparation  
IN Ohkouchi, Kazuhiro; Koyama, Hiroyoshi  
PA Takeda Chemical Industries, Ltd., Japan  
SO PCT Int. Appl., 32 pp.  
CODEN: PIXXD2

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002092058	A1	20021121	WO 2002-JP4641	20020514
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2003034655	A2	20030207	JP 2002-139116	20020514
PRAI	JP 2001-145215	A	20010515		

AB A rapidly disintegratable solid preparation comprises (1) an active ingredient, (2) a sugar and/or a sugar alc., (3) a cellulose derivative, and (4) a dissoln. aid. The solid preparation can be prepared by a dry method even under a low compression pressure and has a practically acceptable hardness and excellent properties, e.g., rapid disintegration, excellent dissoln. control, and less trouble in manufacturing. For example, granules were formulated containing manidipine hydrochloride, starch, hydroxypropyl cellulose, and iron oxide. Sep., granules were formulated containing mannitol, hydroxypropyl cellulose, citric acid, and iron oxide. The both granules, crystalline cellulose, aspartame, and Mg stearate were blended and compressed to give tablets.

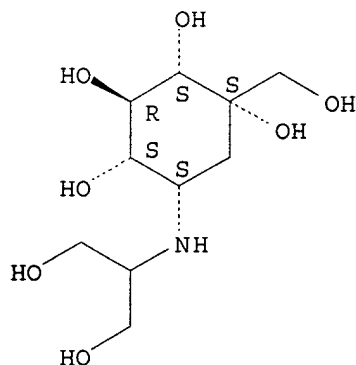
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(excipients for manufacturing rapidly disintegratable solid preps.)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

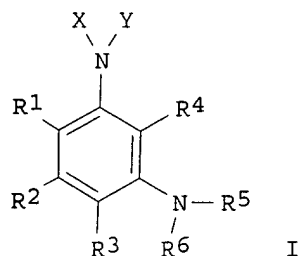


RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 38 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2002:637641 CAPLUS

DN 137:169309  
 TI Preparation of substituted aminobenzene derivatives as glucocorticoid  
 receptor modulators  
 IN Link, James T.; Sorensen, Bryan K.; Patel, Jyoti R.; Arendsen, David L.;  
 Li, Gaoquan  
 PA Abbott Laboratories, USA  
 SO PCT Int. Appl., 272 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002064550	A1	20020822	WO 2002-US4501	20020212
	WO 2002064550	C1	20021114		
	W: CA, JP, MX				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	CA 2438480	AA	20020822	CA 2002-2438480	20020212
	EP 1363876	A1	20031126	EP 2002-714910	20020212
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2005510450	T2	20050421	JP 2002-564483	20020212
PRAI	US 2001-783636	A	20010214		
	US 2002-72548	A	20020208		
	WO 2002-US4501	W	20020212		
OS	MARPAT 137:169309				
GI					



AB Gen, hydroxyalkyl, substituted amine; R4 is substituted aminobenzenes I  
 were prepared and are novel glucocorticoid receptor modulators and are  
 useful for treating type II diabetes in a mammal, wherein R1-R3 are each  
 independently hydrogen, alkoxycarbonyl, alkoxy, alkoxyalkyl, alkyl,  
 alkylcarbonyl, carboxy, halogen, hydroxyalkyl, substituted amine; R4 is  
 hydrogen, alkenyl, alkoxy, alkoxyalkenyl, alkoxyalkoxy, alkoxyalkyl,  
 alkoxyalkynyl, alkoxycarbonyl, alkoxycarbonylalkoxy,  
 alkoxycarbonylalkenyl, alkoxycarbonylalkyl, alkoxycarbonylalkynyl, alkyl,  
 alkylcarbonyl, alkylcarbonylalkenyl, alkylcarbonylalkoxy,  
 alkylcarbonylalkyl, alkylcarbonylalkynyl, alkynyl, carboxy,  
 carboxyalkenyl, carboxyalkyl, carboxyalkynyl, haloalkoxy, haloalkyl,  
 haloalkenyl, haloalkynyl, halogen, hydroxyalkyl, substituted amine; R5 is  
 hydrogen, alkyl; R6 is hydrogen, alkoxycarbonyl, alkoxysulfonyl, alkyl,  
 alkylcarbonyl, alkylsulfonyl, arylalkoxycarbonyl, arylalkylcarbonyl,  
 arylalkylsulfonyl, arylcarbonyl, arylsulfonyl, cycloalkylcarbonyl,  
 cycloalkylalkylcarbonyl, cycloalkylsulfonyl, cycloalkylalkylsulfonyl,  
 heterocyclecarbonyl, heterocyclealkylcarbonyl, heterocyclesulfonyl,  
 heterocyclealkylsulfonyl, amide, aminosulfonyl; X and Y are independently  
 heteroatom-containing hydrocarbon. Thus, N-[3-(dibenzylamino)-2-  
 methylphenyl]ethanesulfonamide was prepared as glucocorticoid receptor

modulator. A method of treating symptoms related to type II diabetes wherein said symptoms are selected from the group consisting of hyperglycemia, hyperinsulinemia, inadequate, glucose clearance, obesity, hypertension and high glucocorticoid levels in a mammal comprising administering a therapeutically effective amount of a compound of title compds. A method of treating diseases associated with an excess or deficiency of glucocorticoids, said diseases selected from the group consisting of diabetes, obesity, Syndrome X, Cushing's Syndrome, Addison's disease, inflammatory diseases such as asthma, rhinitis and arthritis, allergy, autoimmune disease, immunodeficiency, anorexia, cachexia, bone loss or bone frailty, and wound healing comprising administering a therapeutically effective amount of a compound of title compds.

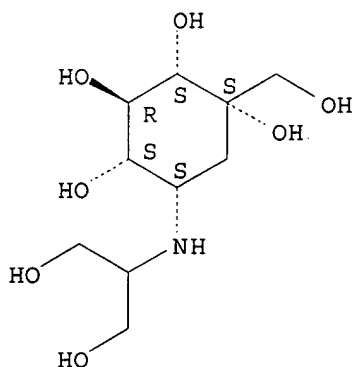
IT 83480-29-9, Voglibose

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of substituted aminobenzene derivs. as glucocorticoid receptor modulators)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 39 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:71854 CAPLUS

DN 136:123667

TI Antidiabetic combinations containing enzymic nitric oxide donor

IN Szilvassy, Zoltan; Tosaki, Arpad; Nemeth, Jozsef; Kovacs, Peter; Pankucsi, Csaba; Hernadi, Ferenc; Ferninandy, Peter

PA Keri Pharma Kft., Hung.

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005795	A2	20020124	WO 2001-HU79	20010713
WO 2002005795	A3	20021219		
WO 2002005795	B1	20030130		
W: AL, AU, BA, BB, BG, BR, CA, CN, CO, CR, CU, CZ, DM, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

CA 2415392	AA	20020124	CA 2001-2415392	20010713
EP 1303304	A2	20030423	EP 2001-954229	20010713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004503585	T2	20040205	JP 2002-511728	20010713
US 2004068005	A1	20040408	US 2003-332946	20031017
PRAI HU 2000-2628	A	20000714		
WO 2001-HU79	W	20010713		

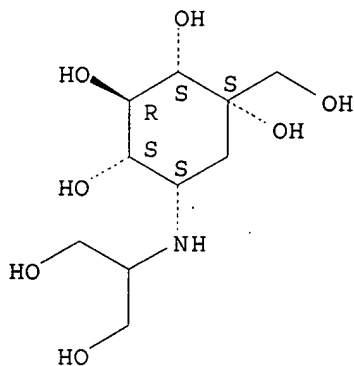
AB Pharmaceutical combinations for treatment and/or prevention of all sorts, periods and complications of diabetes mellitus in mammals, thus including the pre-diabetic diseases and their complications, optionally including furthermore ischemic heart disease comprising an ED of at least one enzymic nitric oxide (NO) donor active ingredient and optionally comprising an ED of at least one antidiabetic active ingredient, and further optionally comprising usual pharmaceutically acceptable carriers and/or other auxiliaries. The combination may consist of more than one pharmaceutical compns. The EDs related to the new insulin-sensitizing effect are considerably lower than the usual doses related to the known effect of most active substances dues to metabolic effects that influence insulin sensitivity in healthy and insulin resistant mammals. The usual dose of NO-donors is necessary when the patient has also ischemic heart disease. Preferred antidiabetics include insulin, a thiazolidinedion, a biguanide derivative, an  $\alpha$ -glucosidase-inhibitor, an  $\alpha$ 2-adrenergic-antagonist and/or a sulfonamide, preferably a sulfonylurea. Preferred enzymic NO donors are nitroglycerin, racemic isosorbide mononitrate, and/or its stereoisomers, racemic isosorbide dinitrate and/or its stereoisomers, erythrityl tetranitrate, pentaerythritol-tetranitrate, methylpropyl-propanediol-dinitrate, propatyl nitrate, trolnitrate, tenitramine and/or nicorandil. The invention includes methods of treatment and processes to prepare the compns.

IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antidiabetic combinations containing enzymic nitric oxide donor)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 40 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:51257 CAPLUS

DN 136:123595

TI A combination of phosphonate or phosphorodiamidate FBPase inhibitors and antidiabetic agents useful for the treatment of diabetes

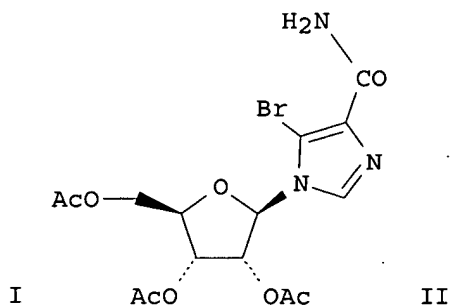
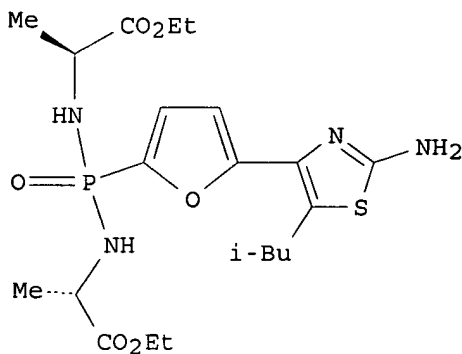
IN Van Poelje, Paul D.; Erion, Mark D.; Fujiwara, Toshihiko

PA Metabasis Therapeutics, Inc., USA; Sankyo Company, Ltd.

SO PCT Int. Appl., 392 pp.

CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002003978	A2	20020117	WO 2001-US21557	20010705
	WO 2002003978	A3	20031016		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2412142	AA	20020117	CA 2001-2412142	20010705
	US 2003073728	A1	20030417	US 2001-900364	20010705
	BR 2001012212	A	20031230	BR 2001-12212	20010705
	EP 1372660	A2	20040102	EP 2001-952530	20010705
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004508297	T2	20040318	JP 2002-508433	20010705
	CN 1599612	A	20050323	CN 2001-814924	20010705
	NZ 523227	A	20050429	NZ 2001-523227	20010705
	ZA 2003000044	A	20040506	ZA 2003-44	20030102
	NO 2003000034	A	20030305	NO 2003-34	20030103
	AU 2006201410	A1	20060427	AU 2006-201410	20060404
PRAI	US 2000-216531P	P	20000706		
	US 2001-900364	A	20010705		
	US 2000-215126P	P	20000629		
	AU 2001-73271	A3	20010705		
	WO 2001-US21557	W	20010705		
OS	MARPAT 136:123595				
GI					



AB A combination therapy of at least one FBPase inhibitor ((R1Y)2P(O)M and R14C(O) (CR12R13)nN(R18)P(O) (NR15R16)M; e.g. 2-amino-5-propylthio-4-(5-phosphono-2-furanyl)thiazole monohydrobromide and 2-amino-5-isobutyl-4-[2-[N,N'-bis[(S)-1-(ethoxycarbonyl)ethyl]phosphonodiamido]-5-furanyl]thiazole (shown as I)) and at least one other antidiabetic agent (insulin secretagogue; e.g. glyburide, a sulfonylurea) is disclosed. (R1Y)2P(O)M and R14C(O) (CR12R13)nN(R18)P(O) (NR15R16)M are converted in vivo or in vitro to MPO32-, which inhibit FBPase; the substituents are defined in the claims. General methods and about 15 specific example prepsns.



of the phosphorus compds. are included but no methods of preparation are claimed. In the biol. examples, data is presented for the following for selected phosphorus compds. and other materials: inhibition of human liver FBPase, inhibition of rat liver and mouse liver FBPase, inhibition of gluconeogenesis by an FBPase inhibitor in rat hepatocytes, inhibition of glucose prodn. and elevation of fructose-1,6-bisphosphate levels in rat hepatocytes treated with FBPase inhibitors, anal. of hepatic and plasma drug metabolite levels, blood glucose, and hepatic fructose 1,6-bisphosphate levels after administration of compound A (shown as II) p.o. to normal fasted rats, anal. of hepatic and plasma drug levels after administration of compds. i.p. to normal fasted rats, oral bioavailability determination of two compds. and oral glucose lowering activity of two compds. For insulin secretagogues: insulin release from pancreatic islets, glucose lowering in the fasted rat, i.v. glucose tolerance in the fasted rat, oral glucose tolerance in the Zucker diabetic fatty rat, insulin secretion in the rat, inhibition of KATP-channels in mouse pancreatic beta-cells, and sulfonylurea receptor binding. Also included are: inhibition of dipeptidyl peptidase IV (DPP-IV inhibitors), alpha-glucosidase assay, glycogen phosphorylase assay, assay of glucose 6-phosphatase inhibitors, glucagon antagonist assay, amylin agonist assay, fatty acid oxidation inhibitor assay, glucose lowering in the db/db mouse (FBPase inhibitor), glucose lowering in the ZDF rat, acute combination treatment of an insulin secretagogue and an FBPase inhibitor in the ZDF rat, chronic combination treatment of an insulin secretagogue and an FBPase inhibitor in the ZDF rat, acute combination treatment of insulin and an FBPase inhibitor in db/db mice, beneficial effect of chronic combination treatment of insulin and an FBPase inhibitor in db/db mice, and beneficial effect of chronic combination treatment of insulin and an FBPase inhibitor in db/db Mice. Also included are: acute combination treatment of insulin and an FBPase inhibitor in the Goto-Kakizaki rat, acute combination treatment of a biguanide and an FBPase inhibitor in db/db mice, acute combination treatment of an alpha glucosidase inhibitor and an FBPase inhibitor in Goto-Kakizaki rats, acute combination treatment of a glycogen phosphorylase inhibitor and an FBPase inhibitor in db/db or ob/ob mice, acute combination treatment of a glucose-6-phosphatase inhibitor and an FBPase inhibitor in db/db or ob/ob mice, acute combination treatment of an FBPase inhibitor and an amylin agonist, chronic combination treatment of a fatty acid oxidation inhibitor and an FBPase inhibitor in the streptozotocin-induced diabetic rat.

IT 83480-29-9, Voglibose

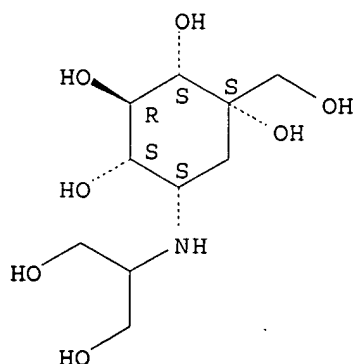
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(insulin secretagogue; combination of phosphonate or phosphorodiamidate FBPase inhibitors and antidiabetic agents useful for treatment of diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 41 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2001:935405 CAPLUS  
 DN 136:48456  
 TI Combinations of depeptidyl peptidase IV inhibitors and other antidiabetic agents for the treatment of diabetes mellitus  
 IN Arch, Jonathan Robert Sanders; Lenhard, James Martin  
 PA Smithkline Beecham PLC, UK; Smithkline Beecham Corporation  
 SO PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2001097808	A1	20011227	WO 2001-GB2696	20010619	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	CA 2413299	AA	20011227	CA 2001-2413299	20010619	
	EP 1292300	A1	20030319	EP 2001-938472	20010619	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
	BR 2001011800	A	20030527	BR 2001-11800	20010619	
	JP 2003535898	T2	20031202	JP 2002-503292	20010619	
	BG 107385	A	20030930	BG 2002-107385	20021212	
	NO 2002006038	A	20030203	NO 2002-6038	20021216	
	ZA 2003000203	A	20040326	ZA 2003-203	20030108	
	US 2003166578	A1	20030904	US 2003-311446	20030220	
	US 7078397	B2	20060718			
	AU 2005232303	A1	20051201	AU 2005-232303	20051111	
PRAI	GB 2000-14969	A	20000619			
	AU 2001-64148	A3	20010619			
	WO 2001-GB2696	W	20010619			

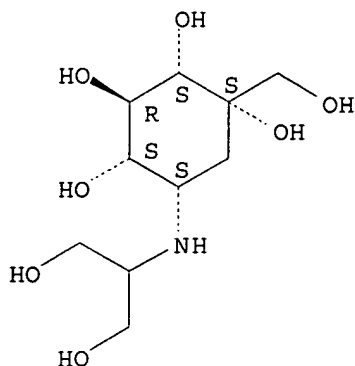
AB A method for the treatment of diabetes mellitus, especially Type 2 diabetes and conditions associated with diabetes mellitus in a mammal, e.g. a human, comprises administering an effective, nontoxic and pharmaceutically acceptable amount of a dipeptidyl peptidase IV inhibitor and another antidiabetic agent to a mammal in need thereof.

IT 83480-29-9, Voglibose  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (depeptidyl peptidase IV inhibitor combination with other antidiabetic agent for treatment of diabetes mellitus)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

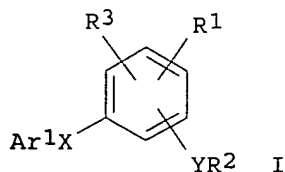
Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 42 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2001:816444 CAPLUS  
DN 135:352829  
TI Combination therapeutic compositions containing benzene compounds  
IN Jaen, Juan C.; Chen, Jin-Long  
PA Tularik Inc., USA  
SO PCT Int. Appl., 57 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001082916	A2	20011108	WO 2001-US14393	20010502
	WO 2001082916	A3	20020704		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002037928	A1	20020328	US 2001-847887	20010502
	US 6653332	B2	20031125		
	US 2004259918	A1	20041223	US 2003-456932	20030605
	US 2006035928	A1	20060216	US 2005-258817	20051026
PRAI	US 2000-201613P	P	20000503		
	US 2001-847887	A1	20010502		
	US 2003-456932	A1	20030605		
OS	MARPAT 135:352829				
GI					



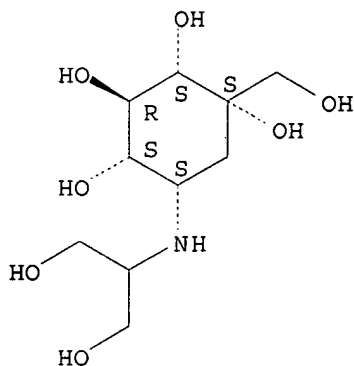
AB The present invention provides pharmaceutical compns. and methods for the treatment of diabetes mellitus using combination therapy. The compns. relate to a benzene compound and an antidiabetic agent such as sulfonylureas, biguanides, glitazones,  $\alpha$ -glucosidase inhibitors, potassium channel antagonists, aldose reductase inhibitors, glucagon antagonists, activators of RXR, insulin therapy or other anti-obesity agent. The methods include the administration of the combination of benzene compound with antidiabetic agent where the two components are delivered in a simultaneous manner, where the benzene compound is administered first, followed by the antidiabetic agent, as well as wherein the antidiabetic agent is delivered first followed by the benzene compound. For example, the benzene compound (I) was synthesized using a 5-amino-2-(3-chloro-5-pyridyloxy)benzonitrile (0.457 g) in methylene chloride to which was added 2,4-dichlorobenzenesulfonyl chloride (0.456 g), followed by pyridine (150  $\mu$ L). The reaction progress was monitored by TLC, and upon completion the solvent was removed under vacuum. The resulting residue was partitioned between methylene chloride and water. The organic layer was drawn off and concentrated. The residue was triturated with ether to provide 0.447 g of I as a white solid, m.p. 154-156°.

IT 83480-29-9, Voglibose  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (benzene compds. in combination therapy for diabetes and diabetes-related disorders)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 43 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:709687 CAPLUS

DN 135:272869

TI Synthesis of indolyl-amides as glycogen phosphorylase inhibitors for treatment of type 2 diabetes

IN Treadway, Judith Lee

PA Pfizer Products Inc., USA

SO Eur. Pat. Appl., 78 pp.  
 CODEN: EPXXDW

DT Patent

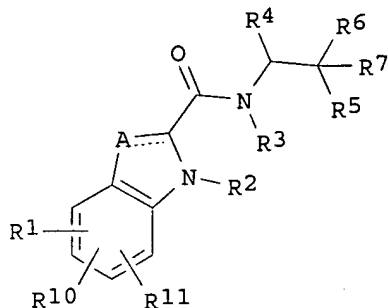
LA English

FAN.CNT 1

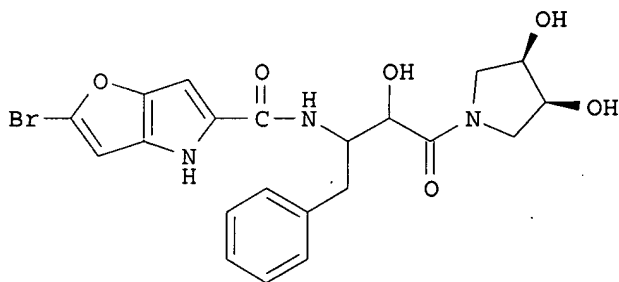
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1136071	A2	20010926	EP 2001-301979	20010305
	EP 1136071	A3	20030326		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

JP 2001302546	A2	20011031	JP 2001-78839	20010319
CA 2341344	AA	20010922	CA 2001-2341344	20010320
ZA 2001002318	A	20020920	ZA 2001-2318	20010320
US 2003004162	A1	20030102	US 2001-813335	20010320
NZ 510677	A	20021025	NZ 2001-510677	20010321
PRAI US 2000-191381P	P	20000322		
OS MARPAT 135:272869				
GI				



I



II

AB Title compds. I [A = CH, C-alkyl, C-halo when the dotted line is a bond; A = CH<sub>2</sub>, CH-alkyl when the dotted line is not a bond; R<sub>1</sub>, R<sub>10</sub>, R<sub>11</sub> = H, halo, 4-, 6- or 7-NO<sub>2</sub>, CN, alkyl, alkoxy, (di/tri)fluoromethyl; R<sub>2</sub> = H; R<sub>3</sub> = H, alkyl; R<sub>4</sub> = H, (hydroxy)alkyl, alkoxy-alkyl, phenyl(hydroxy)alkyl, thienyl-alkyl, etc.; R<sub>5</sub> = H, OH, F, alkyl, alkoxy, alkanoyl, amino-alkoxy, etc.; R<sub>7</sub> = H, F, alkyl; or R<sub>5</sub> and R<sub>7</sub> can be taken together to be oxo; R<sub>6</sub> = carboxy, alkoxy-carbonyl, amido, acyl, alkyl, OH, alkoxy; R<sub>9</sub> = H, alkyl, OH, alkoxy, methyleneperfluorinated-alkyl, Ph, pyridyl, thienyl, etc.] and derivs. were prepared. Over 50 examples were reported. For instance, 2-bromo-4H-furo[3,2-b]pyrrole-5-carboxylic acid was coupled to 2-amino-1-(3,4-dihydroxypyrrolidin-1-yl)-3-phenylpropan-1-one hydrochloride (DCM, DMF, HOBT, EDC, room temperature) to give amide II.

Compds.

I are glycogen phosphorylase inhibitors used for treating type 2 diabetes mellitus in cases which have not yet presented, but in which there is an increased risk of developing such condition. Combination therapies of I and non-glycogen phosphorylase inhibiting anti-diabetic agents are also claimed.

IT 83480-29-9, Voglibose

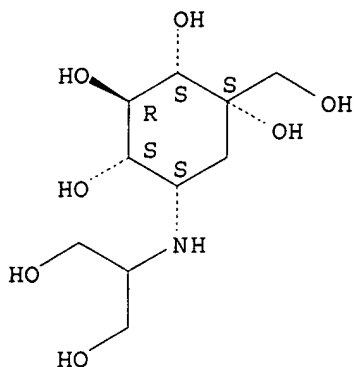
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical in combination with; synthesis of  
indolyl-amides as glycogen phosphorylase inhibitors for treatment of

type 2 diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 44 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:643765 CAPLUS

DN 134:2045

TI Evaluation of  $\alpha$ -glucosidase inhibition by using an immobilized assay system

AU Oki, Tomoyuki; Matsui, Toshiro; Matsumoto, Kiyoshi

CS Division of Bioresource and Bioenvironmental Sciences, Faculty of Agriculture, Graduate School Kyushu University, Fukuoka, 812-8581, Japan

SO Biological & Pharmaceutical Bulletin (2000), 23(9), 1084-1087

CODEN: BPBLEO; ISSN: 0918-6158

PB Pharmaceutical Society of Japan

DT Journal

LA English

AB The inhibitory effects of natural and synthetic inhibitors on the intestinal membrane-bound hydrolase,  $\alpha$ -glucosidase (AGH), were evaluated by using an immobilized cyanogen bromide-activated Sepharose 4B support. Immobilized AGH (iAGH) inhibition study by synthetic inhibitors (acarbose and voglibose) revealed that the magnitude of inhibition differed from that in the free AGH (fAGH) study: IC<sub>50</sub> value of acarbose in iAGH-maltase assay system, 340-430 nM; fAGH, 11 nM. IAGH-maltase inhibition by both inhibitors was influenced by blocking reagents with different functional groups (COOH, OH, CH<sub>3</sub>, and NH<sub>2</sub> groups). On the other hand, significant iAGH-sucrase inhibitory activity was observed only when using the neg. charged support induced by 0.1 M  $\beta$ -alanine. The K<sub>m</sub> values obtained in the iAGH assay system were similar to those from the fAGH method. With natural inhibitors, the iAGH-sucrase inhibitory activity of D-xylose, with in vivo glucose suppression, increased twice compared to that in fAGH. Green tea extract gave almost the same inhibition for both AGH assay systems.

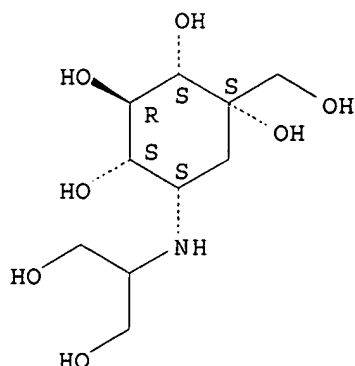
IT 83480-29-9, Voglibose

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(evaluation of intestinal  $\alpha$ -glucosidase inhibition by using immobilized assay system)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 45 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:335274 CAPLUS

DN 132:343329

TI Combinations comprising a  $\beta$ -agonist and a further antidiabetic agent  
for the treatment of diabetes mellitus and conditions associated with  
diabetes

IN Arch, Jonathan Robert Sanders

PA SmithKline Beecham P.L.C., UK

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2000027434	A1	20000518	WO 1999-GB3755	19991111	
	W:			AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW		
	RW:			GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
	CA 2350062	AA	20000518	CA 1999-2350062	19991111	
	EP 1128845	A1	20010905	EP 1999-954217	19991111	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO		
	TR 200101336	T2	20011121	TR 2001-200101336	19991111	
	BR 9915214	A	20011218	BR 1999-15214	19991111	
	JP 2002529430	T2	20020910	JP 2000-580663	19991111	
	AU 766928	B2	20031023	AU 2000-10634	19991111	
	NO 2001002300	A	20010703	NO 2001-2300	20010510	
	ZA 2001003792	A	20020610	ZA 2001-3792	20010510	
	US 2003073644	A1	20030417	US 2002-243164	20020913	
PRAI	GB 1998-24789	A	19981111			
	GB 1998-24790	A	19981111			
	GB 1998-24791	A	19981111			
	WO 1999-GB3755	W	19991111			
	US 2001-831651	B1	20010711			
AB	A method for the treatment of diabetes mellitus and conditions associated with diabetes mellitus in a mammal such as a human comprises administering an effective, nontoxic and pharmaceutically acceptable amount of a $\beta$ -agonist and another antidiabetic agent.					
IT	83480-29-9, Voglibose					
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological					

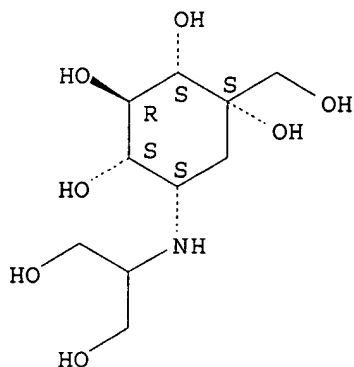
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\beta$ -agonist-antidiabetic combination for treatment of diabetes mellitus and conditions associated with diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 46 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:183958 CAPLUS

DN 132:329748

TI Inhibition of progressive reduction of islet  $\beta$ -cell mass in spontaneously diabetic goto-kakizaki rats by  $\alpha$ -glucosidase inhibitor

AU Koyama, Motoi; Wada, Ryuichi; Mizukami, Hiroki; Sakuraba, Hiroyasu; Odaka, Hiroyuki; Ikeda, Hitoshi; Yagihashi, Soroku

CS Department of Pathology, Hirosaki University School of Medicine, Hirosaki, 036-8562, Japan

SO Metabolism, Clinical and Experimental (2000), 49(3), 347-352

CODEN: METAAJ; ISSN: 0026-0495

PB W. B. Saunders Co.

DT Journal

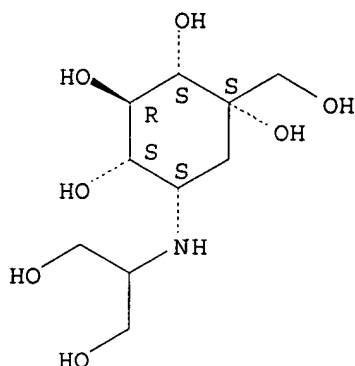
LA English

AB The Goto-Kakizaki (GK) rat, an animal model of type 2 diabetes, exhibits mild hyperglycemia with a reduction of  $\beta$ -cell mass. The mechanism for islet structural changes in this model and whether the changes are affected by metabolic control are not known. In the present study, we examined the process of islet changes in male GK rats aged 6, 8, 12, 24, and 36 wk. Treatment effects with an  $\alpha$ -glucosidase inhibitor (Voglibose; Takeda, Osaka, Japan) for 24 wk (12 to 36 wk of age) were also evaluated. The  $\beta$ -cell mass increased until 8 wk of age in both GK and control rats, but the increase was significantly ( $P < .01$ ) smaller in GK rats vs. at 8 wk of age. Thereafter, the  $\beta$ -cell mass decreased in GK rats, whereas it remained constant in controls. Voglibose treatment significantly ( $P < .01$ ) inhibited the reduction of  $\beta$ -cell mass in GK rats. Proliferative activity of  $\beta$  cells as measured by bromodeoxyuridine (BrdU) uptake was significantly ( $P < .05$ ) lower in GK rats vs. control rats at 6 and 8 wk, but the difference disappeared after 12 wk of age, regardless of Voglibose treatment. The present study thus demonstrates a progressive loss of  $\beta$  cells in GK rats that was mitigated by Voglibose treatment. We consider that the  $\beta$ -cell loss in GK rats was due to an early impairment in proliferative activity and reduced survival. Voglibose did not appear to stimulate  $\beta$ -cell proliferation, but exerted its effect via a reduction of hyperglycemia.



IT 83480-29-9, Voglibose  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 ( $\alpha$ -glucosidase inhibitor inhibition of islet  $\beta$ -cell mass progressive reduction in diabetes)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

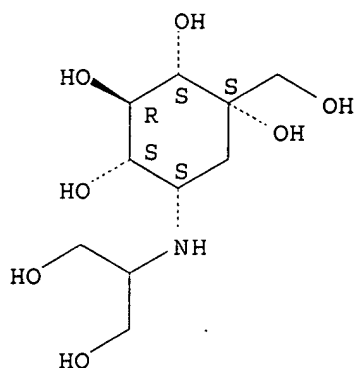
Absolute stereochemistry.



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

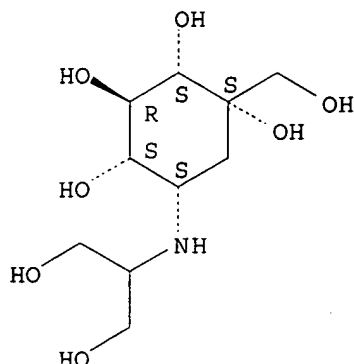
L5 ANSWER 47 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:735696 CAPLUS  
 DN 129:339398  
 TI Structure-activity relationship of  $\alpha$ -glucosidase inhibitors  
 AU Fukase, Hiroshi  
 CS Pharm. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan  
 SO Nippon Yakuzashikai Zasshi (1998), 50(11), 1977-1982  
 CODEN: NYZZA3; ISSN: 0369-674X  
 PB Nippon Yakuzashikai  
 DT Journal; General Review  
 LA Japanese  
 AB A review with 9 refs., on developmental process, structure-activity relationship, and clin. effects of antidiabetic  $\alpha$ -glucosidase inhibitors, acarbose and voglibose.  
 IT 83480-29-9, Voglibose  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (structure-activity relationships of antidiabetic  $\alpha$ -glucosidase inhibitors)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4'-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 48 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:742059 CAPLUS  
 DN 128:57088  
 TI The  $\alpha$ -glucosidase inhibitor voglibose (AO-128) does not  
 change pharmacodynamics or pharmacokinetics of warfarin  
 AU Fuder, H.; Kleist, P.; Birkel, M.; Ehrlich, a.; Emeklibas, S.; Maslak, W.;  
 Stridde, E.; Wetzelsberger, N.; Wieckhorst, G.; Lucker, P. W.  
 CS Institut Klinische Pharmakologie Bobenheim, Grunstadt, D-67269, Germany  
 SO European Journal of Clinical Pharmacology (1997), 53(2), 153-157  
 CODEN: EJCPAS; ISSN: 0031-6970  
 PB Springer  
 DT Journal  
 LA English  
 AB Voglibose is a new and potent inhibitor of  $\alpha$ -glucosidases  
 and is used for the treatment of diabetes mellitus. Since  
 voglibose increases gastrointestinal motility and could thus  
 affect absorption of concomitantly administered drugs, it was investigated  
 whether or not voglibose modifies the pharmacodynamics and  
 pharmacokinetics of warfarin, an oral anticoagulant frequently used in  
 cardiovascular disorders likely to arise in diabetic patients. Twelve  
 healthy male subjects were given individually adjusted doses of warfarin  
 to reduce prothrombin time (Quick's method) to a value of about  
 30-40% of the normal range within the first 8 days. Then, the individual  
 maintenance dose, given in the morning, was maintained until day 15. On  
 study days 11-15, voglibose was co-administered per os in a dose  
 of 5 mg t.i.d. The prothrombin time was determined on days 10 and 11  
 (reference) and  
 on days 15 and 16 (test), and the steady-state pharmacokinetic  
 characteristics of the warfarin enantiomers were determined on days 10  
 (reference)  
 and 15 (test). The ratios test/reference were evaluated according to  
 bioequivalence criteria. The equivalence ratio (test/reference) for the  
 pharmacodynamic parameter prothrombin time was 0.97 and for the  
 pharmacokinetic characteristics AUC<sub>0-24h</sub>,  $\tau_{ss}$ : S-(-)-warfarin, 1.05;  
 R-(+)-warfarin, 1.01; and C<sub>max,ss</sub>: S-(-)-warfarin, 1.08; R-(+)-warfarin,  
 1.04. All parameters were within the predetd. accepted range of 0.7-1.43  
 (pharmacodynamics) or 0.8-1.25 (pharmacokinetics), thus fulfilling  
 equivalence criteria. Voglibose modified neither the  
 pharmacodynamics nor the pharmacokinetic of warfarin under steady-state  
 conditions. Concomitant treatment was well tolerated and has been proven  
 to be safe for further clin. use.  
 IT 83480-29-9, Voglibose  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 ( $\alpha$ -glucosidase inhibitor voglibose (AO-128) does not  
 change warfarin pharmacodynamics or pharmacokinetics)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
 C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

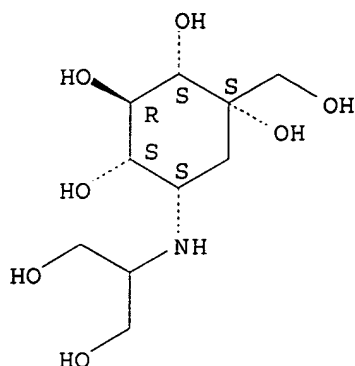
Absolute stereochemistry.



RE.CNT 18      THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

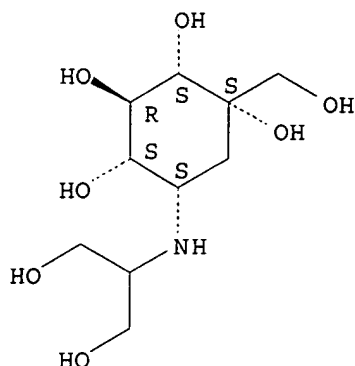
L5    ANSWER 49 OF 55    CAPLUS    COPYRIGHT 2006 ACS on STN  
AN    1997:672490    CAPLUS  
DN    127:331640  
TI    Development of voglibose (Basen), an antidiabetic agent  
AU    Fukase, Hiroshi  
CS    Pharm. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan  
SO    Yuki Gosei Kagaku Kyokaishi (1997), 55(10), 920-925  
      CODEN: YGKKAE; ISSN: 0037-9980  
PB    Yuki Gosei Kagaku Kyokai  
DT    Journal; General Review  
LA    Japanese  
AB    A review with 6 refs.    Voglibose (Basen®), having more  
      potent disaccharidase inhibitory activity against maltase and sucrase than  
      do naturally occurring pseudo-oligosaccharide  $\alpha$ -glucosidase  
      inhibitors, has been developed for the treatment of diabetes mellitus as  
      the blood glucose ameliorating agent. Valiolamine, an important key  
      compound for the preparation of N-substituted valiolamine derivs., was  
      synthesized by stereoselective hydration of the C-C double bond of  
      valienamine obtained by microbiol. degradation of validamycins. Efficient and  
      practical total synthesis of valiolamine starting from D-glucose  
      has also been achieved. In animals and healthy volunteers,  
      voglibose significantly reduced postprandial blood glucose concentration  
      Clin. trials in patients with diabetes mellitus also demonstrated that  
      voglibose improves post-partial glucose levels.  
IT    83480-29-9P, Voglibose  
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
      study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
      BIOL (Biological study); PREP (Preparation); USES (Uses)  
      (development of antidiabetic voglibose (Basen))  
RN    83480-29-9    CAPLUS  
CN    D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
      C-(hydroxymethyl)- (9CI)    (CA INDEX NAME)

Absolute stereochemistry.



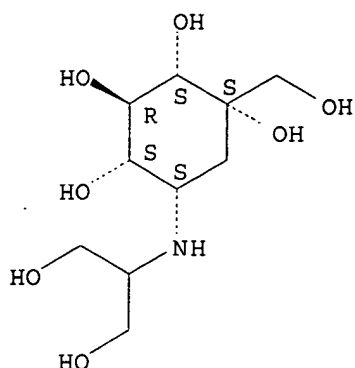
L5 ANSWER 50 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:555885 CAPLUS  
 DN 127:229493  
 TI The efficacy of voglibose on daily glycemic excursions assessed by the "J"-index in non-insulin dependent diabetes mellitus  
 AU Yoshioka, Keiji; Azukari, K.; Ashida, K.; Kasamatsu, Y.; Yokoo, S.; Yoshida, T.; Kondo, M.  
 CS First Department Internal Medicine, Matsuhita Memorial Hospital, Moriguchi, 570, Japan  
 SO Hormone and Metabolic Research (1997), 29(8), 407-408  
 CODEN: HMMRA2; ISSN: 0018-5043  
 PB Thieme  
 DT Journal  
 LA English  
 AB Levels of fasting blood plasma glucose (FPG) were 212 vs. 130.5 mg/dL and of HbA1c 10.5 vs. 8.9% in non-insulin dependent diabetes mellitus (NIDDM) patients 4 wk after strict diet therapy combined with hypoglycemic agents compared to the levels upon admission. After administration of voglibose (0.2 mg, 3 + daily) the "J"-index ( $J = 0.001 + (\text{mean plasma glucose level} + \text{SD})^2$ ) declined from 59.7 to 34.6. Changes of "J"-index were mainly caused by the drop of postprandial blood plasma glucose values calculated 2 h after breakfast (248 vs. 178), 2 h after lunch (195 vs. 162), and 2 h after dinner (227 vs. 168 mg/dL). The M-value (calculated by the method of Schlichtkrull et al., 1995) decreased (66.4 vs. 31.1). Voglibose administration decreased the FPG levels (130.5 vs. 109.6 mg/dL).  
 IT 83480-29-9, Voglibose  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (voglibose effecting daily glycemic excursions assessed by "J"-index in non-insulin dependent diabetes mellitus)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 51 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:428776 CAPLUS  
 DN 127:104196  
 TI Effects of administration of voglibose and pioglitazone on the  
 functions of pancreatic islets of Langerhans in GK rats  
 AU Kato, Seika; Ishida, Hitoshi; Seino, Yutaka; Odaka, Hiroyuki; Ikeda,  
 Hitoshi  
 CS Byotai Taisha Eiyogaku, Kyoto Daigaku, Kyoto, 606-01, Japan  
 SO Diabetes Frontier (1997), 8(3), 377  
 CODEN: DIFREZ; ISSN: 0915-6593  
 PB Medikaru Rebyusha  
 DT Journal  
 LA Japanese  
 AB Goto-Kakizaki (GK) male rats, model for non-insulin dependent diabetes  
 mellitus, were fed on the diet containing 10 ppm voglibose (VO) from  
 8 to 13 wk of age. During this period, pioglitazone (PI) was administered  
 at 1 mg/kg/day. GK rats fed on a normal diet were served as the control.  
 Blood glucose (G) levels of the control, VO, PI and VO + PI groups before  
 and 2 h after G load (1 g/kg, i.p.) at 13 wk of age were 186 and 275, 146  
 and 198, 151 and 210, and 144 and 203 mg/dL, resp. Quantities of G (16.7  
 mM)-stimulated insulin secretion, measured according to the batch  
 incubation method, were significantly lower in the VO and VO +  
 PI groups (18.99 and 27.80  $\mu$ U/islet/30 min, resp.) than in the control  
 group (8.05  $\mu$ U/islet/30 min). Fasting plasma G levels and blood  
 triglyceride levels at 13 wk of age were significantly decreased in the VO  
 and VO + PI groups than in the control group. Total cholesterol levels  
 were also decreased in the VO + PI groups than in the control group.  
 Insulin contents in the Langerhans' islands of the control, VO, and VO +  
 PI groups were 32.5, 66.2, and 65.1 ng/islet, resp. These results suggest  
 that GK rats treated with VO alone or combined with PI preserve the  
 functions of pancreatic islets of Langerhans.  
 IT 83480-29-9, Voglibose  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (effects of voglibose and pioglitazone on blood glucose,  
 insulin, triglyceride, and pancreatic islets of Langerhans in GK rats)  
 RN 83480-29-9 CAPLUS  
 CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-  
 C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 52 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1997:134768 CAPLUS  
 DN 126:148504  
 TI Pharmaceutical composition for use in treatment of diabetes  
 IN Ikeda, Hitoshi; Sohda, Takashi; Odaka, Hiroyuki  
 PA Takeda Chemical Industries, Ltd., Japan  
 SO Eur. Pat. Appl., 16 pp.  
 CODEN: EPXXDW

DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 749751	A2	19961227	EP 1996-304570	19960620
	EP 749751	A3	19970416		
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	TW 438587	B	20010607	TW 1996-85107042	19960612
	AU 9656034	A1	19970109	AU 1996-56034	19960618
	AU 723097	B2	20000817		
	JP 09067271	A2	19970311	JP 1996-156725	19960618
	JP 3148973	B2	20010326		
	JP 10167986	A2	19980623	JP 1997-360756	19960618
	NO 9602606	A	19961223	NO 1996-2606	19960619
	NO 313226	B1	20020902		
	CN 1145783	A	19970326	CN 1996-111063	19960619
	ZA 9605190	A	19971219	ZA 1996-5190	19960619
	US 5952356	A	19990914	US 1996-667979	19960619
	RU 2198682	C2	20030220	RU 1996-111958	19960619
	CZ 291624	B6	20030416	CZ 1996-1811	19960619
	RU 2223760	C2	20040220	RU 2002-104459	19960619
	CN 1530105	A	20040922	CN 2002-2002149131	19960619
	CN 1530106	A	20040922	CN 2002-2002149132	19960619
	CA 2179584	AA	19961221	CA 1996-2179584	19960620
	CA 2531834	AA	19961221	CA 1996-2531834	19960620
	CA 2533845	AA	19961221	CA 1996-2533845	19960620
	EP 861666	A2	19980902	EP 1998-200252	19960620
	EP 861666	A3	19990210		
	EP 861666	B1	20031217		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	EP 1174135	A2	20020123	EP 2001-203170	19960620
	EP 1174135	A3	20020619		
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	AT 256463	E	20040115	AT 1998-200252	19960620
	PT 861666	T	20040531	PT 1998-200252	19960620
	ES 2212208	T3	20040716	ES 1998-200252	19960620
	US 5965584	A	19991012	US 1998-57465	19980409
	HK 1010484	A1	20041126	HK 1998-111476	19981022

US 6150383	A	20001121	US 1999-280710	19990330
US 6121295	A	20000919	US 1999-303496	19990430
US 6133293	A	20001017	US 1999-302469	19990430
US 6150384	A	20001121	US 1999-303493	19990430
US 6156773	A	20001205	US 1999-303497	19990430
US 6166042	A	20001226	US 1999-302470	19990430
US 6166043	A	20001226	US 1999-303492	19990430
US 6169099	B1	20010102	US 1999-302468	19990430
US 6172089	B1	20010109	US 1999-303494	19990430
US 6172090	B1	20010109	US 1999-303495	19990430
US 6214848	B1	20010410	US 1999-302508	19990430
US 6080765	A	20000627	US 1999-321098	19990527
US 6121294	A	20000919	US 1999-321096	19990527
US 6133295	A	20001017	US 1999-321099	19990527
US 6174904	B1	20010116	US 1999-321095	19990527
US 6225326	B1	20010501	US 1999-321097	19990527
US 6103742	A	20000815	US 1999-386457	19990831
US 6169100	B1	20010102	US 1999-386504	19990831
US 6329404	B1	20011211	US 1999-453521	19991203
AU 741226	B2	20011129	AU 2000-40867	20000615
US 6211205	B1	20010403	US 2000-606176	20000629
US 6303640	B1	20011016	US 2000-605704	20000629
US 6218409	B1	20010417	US 2000-610994	20000706
US 6232330	B1	20010515	US 2000-610993	20000706
US 6288090	B1	20010911	US 2000-610992	20000706
US 6239153	B1	20010529	US 2000-618636	20000718
US 6251924	B1	20010626	US 2000-618635	20000718
US 6323225	B1	20011127	US 2000-618634	20000718
US 6211206	B1	20010403	US 2000-619640	20000719
US 6211207	B1	20010403	US 2000-619641	20000719
NO 2000004345	A	19961223	NO 2000-4345	20000901
NO 314065	B1	20030127		
US 6274605	B1	20010814	US 2000-722330	20001122
US 6271243	B1	20010807	US 2000-722597	20001128
US 6277869	B1	20010821	US 2000-722291	20001128
US 2002002186	A1	20020103	US 2001-907768	20010719
US 2002042434	A1	20020411	US 2001-973689	20011011
US 6384062	B2	20020507		
US 2002123512	A1	20020905	US 2002-84479	20020228
NO 2002001172	A	19961223	NO 2002-1172	20020308
NO 317341	B1	20041011		
US 2002128289	A1	20020912	US 2002-95453	20020313
US 6599923	B2	20030729		
CZ 292093	B6	20030716	CZ 2002-2453	20020715
US 2003216443	A1	20031120	US 2003-462793	20030617
US 6911459	B2	20050628		
US 2004266830	A1	20041230	US 2004-898316	20040726
US 2005054685	A1	20050310	US 2004-937494	20040910
PRAI JP 1995-153500	A	19950620		
JP 1996-156725	A3	19960618		
RU 1996-111958	A	19960619		
US 1996-667979	A3	19960619		
CA 1996-2179584	A3	19960620		
EP 1996-304570	A3	19960620		
EP 1998-200252	A3	19960620		
US 1998-27189	B1	19980220		
US 1998-57465	A3	19980409		
US 1999-280710	A3	19990330		
US 1999-302468	A3	19990430		
US 1999-302469	A3	19990430		
US 1999-303496	A3	19990430		
US 1999-303497	A3	19990430		
US 1999-453521	A3	19991203		
US 1999-468835	B1	19991222		

US 2000-605704	A3	20000629
US 2000-657785	B1	20000908
US 2001-907768	B1	20010719
US 2001-973689	A3	20011011
US 2002-95453	A3	20020313
US 2003-462793	A3	20030617

OS MARPAT 126:148504

AB Pharmaceutical composition which comprises an insulin sensitivity enhancer in combination with other antidiabetics differing from the enhancer in the mechanism of action, which shows a potent depressive effect on diabetic hyperglycemia and is useful for prophylaxis and treatment of diabetes. As an example, rats given pioglitazone hydrochloride (oral, 3 mg/kg/day) and/or glibenclamide (an insulin secretion enhancer-- oral 3 mg/kg/day) for 7 days. The increase of blood sugar following glucose loading was remarkably inhibited by the combined administration of pioglitazone and glibenclamide as compared with the administration of the drug alone.

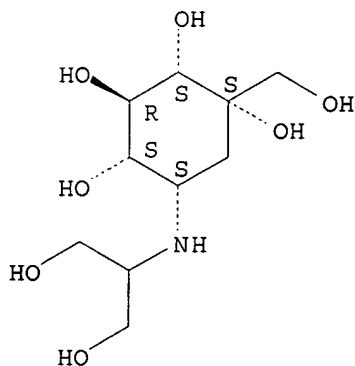
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
( $\alpha$ -glucosidase inhibitor; pharmaceutical composition for use in treatment of diabetes)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 53 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:350662 CAPLUS

DN 125:25993

TI Improvement of insulin sensitivity and dyslipidemia with a new  $\alpha$ -glucosidase inhibitor, voglibose, in nondiabetic hyperinsulinemic subjects

AU Shinozaki, Kazuya; Suzuki, Masaaki; Ikebuchi, Motoyoshi; Hirose, Junya; Hara, Yasushi; Harano, Yutaka

CS Dep. Med., Natl. Cardiovascular Cent., Osaka, Japan

SO Metabolism, Clinical and Experimental (1996), 45(6), 731-737

CODEN: METAAJ; ISSN: 0026-0495

PB Saunders

DT Journal

LA English

AB This study was undertaken to investigate the effect of voglibose, a new  $\alpha$ -glucosidase inhibitor, on glucose and lipid metabolism in nondiabetic hyperinsulinemic subjects. Sixteen nondiabetic subjects with hyperinsulinemia participating in the study. They were divided into two groups of eight subjects with normal (NGT) and impaired (IGT) glucose tolerance. A meal tolerance test and a 75-g oral glucose tolerance test (OGTT) were performed at the beginning (baseline phase) and end (treatment phase) of the 12-wk treatment. Serum lipid levels were measured every 4



wk throughout the treatment phase and follow-up phase (8 wk). All patients received 1 0.2-mg tablet of voglibose before each test meal (3 tablets per day). We also measured insulin sensitivity using a steady-state plasma glucose (SSPG) method in eight normotensive hyperinsulinemic subjects and in eight age- and body mass index (BMI)-matched control subjects before and after the drug treatment. Voglibose significantly decreased the responses of plasma glucose and insulin on the meal tolerance test. The area under the curve for 2-h insulin during the 75-g OGTT decreased after treatment, whereas that for 2-h glucose did not change before and after treatment. SSPG was reduced after treatment, indicating improvement of insulin sensitivity. Moreover, treatment with voglibose resulted in a significant decline of triglyceride level and an elevation of high-d. lipoprotein (HDL) cholesterol and apolipoprotein A-I. These values returned to near-baseline levels after the drug was discontinued. Consequently, we conclude that this agent not only has a direct hypoglycemic effect through decreased absorption of carbohydrate, but also a hypoinsulinemic and hypolipidemic effect via improved insulin sensitivity.

IT 83480-29-9, Voglibose

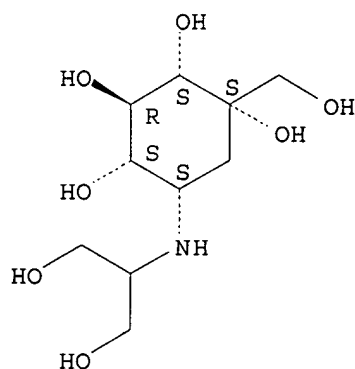
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(improvement of insulin sensitivity and dyslipidemia with a new  $\alpha$ -glucosidase inhibitor, voglibose, in nondiabetic hyperinsulinemic humans)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 54 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:612976 CAPLUS

DN 121:212976

TI Tablets with improved abrasion resistance and method to produce them

IN Matoba, Hiroshi; Koyama, Hiroyoshi; Kikuta, Junichi

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 610854	A1	19940817	EP 1994-101809	19940207
	EP 610854	B1	20000419		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE

JP 06293634	A2	19941021	JP 1994-23269	19940124
JP 2647338	B2	19970827		
US 5456920	A	19951010	US 1994-187908	19940128
NO 9400373	A	19940811	NO 1994-373	19940204
AT 191846	E	20000515	AT 1994-101809	19940207
CN 1106652	A	19950816	CN 1994-101367	19940208
CA 2115308	AA	19940811	CA 1994-2115308	19940209
CA 2115308	C	20040511		
FI 9400585	A	19940811	FI 1994-585	19940209
PRAI JP 1993-45958	A	19930210		

AB A compression-moldable composition comprising an active ingredient, an excipient, and an oily or fatty substance having a m.p. of .apprx.20-90° is compression molded into uncoated tablets without coating to improve the abrasion resistance. The oily or fatty substance includes a higher fatty acid or a salt thereof, a wax, a fatty acid ester, a hardened oil, a polyalkylene oxide, etc., in an amount of 0.01-10 weight%. The composition may comprise (1) a granulated powder containing the active ingredient and the excipient, and the powdery or granular oily or fatty substance having a lower m.p., or (2) a granulated powder containing the active ingredient, the excipient, and the oily or fatty substance. Compression molding of the composition improves the abrasion resistance of the tablet and inhibits the development of powder by wearing or abrasion even when the oily or fatty substance is used in a small amount of 0.1-0.5 weight%. Thus, 2-(7-chloro-1,8-naphthyridin-2-yl)-3-(1,4-dioxo-8-azaspiro[4.5]dec-8-yl)carbonylmethylisoindolin-1-one 32.0 was granulated with lactose 756.8, corn starch 144.0, and 6% aqueous hydroxypropylcellulose 451.2 g at 70° in a fluidized bed, the mixture was dried and comminuted, and 840.0 g was combined with PEG 6000 3.6 and Mg stearate 66.4 g and compression molded in a rotary tablet machine to form 130.0-mg tablets 2.5 mm thick. Very little powder was formed by shaking the tablets for 30 min.

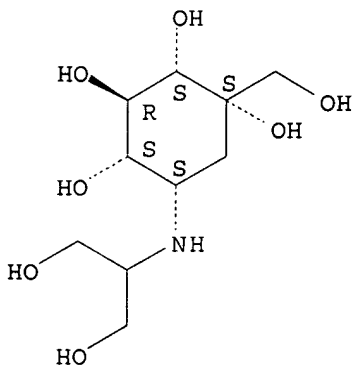
IT 83480-29-9, Voglibose

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(tablets with improved abrasion resistance containing oils or fats)

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 55 OF 55 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1993:650258 CAPLUS

DN 119:250258

TI Valiolamine and its N-substituted derivatives.  $\alpha$ -D-glucosidase inhibitors. From validamycins to voglibose (AO-128), and antidiabetic agent

AU Horii, Satoshi

CS Pharm. Res. Div., Takeda Chem. Ind. Ltd., Osaka, 532, Japan

SO Takeda Kenkyushoho (1993), 52, 1-26

CODEN: TAKHAA; ISSN: 0371-5167

DT Journal; General Review

LA English

AB A review with 41 refs. on pseudo-amino sugars and their  $\alpha$ -D-glucosidase inhibitory activity, stereoselective conversion of valienamine and validamine into valioline, preparation of N-substituted valioline and their  $\alpha$ -D-glucosidase inhibitory activity, synthesis of valioline and voglibose (AO-128) from D-glucose, and total synthesis of validoxylamine G and validamycin G.

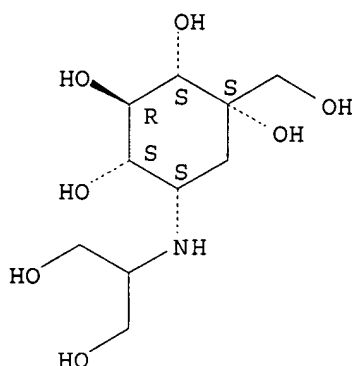
IT 83480-29-9, Voglibose

RL: RCT (Reactant); RACT (Reactant or reagent))

RN 83480-29-9 CAPLUS

CN D-epi-Inositol, 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

366.19

533.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-51.00

-51.00

FILE 'REGISTRY' ENTERED AT 15:01:47 ON 08 AUG 2006

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DICTIONARY FILE UPDATES: 7 AUG 2006 HIGHEST RN 899508-12-4

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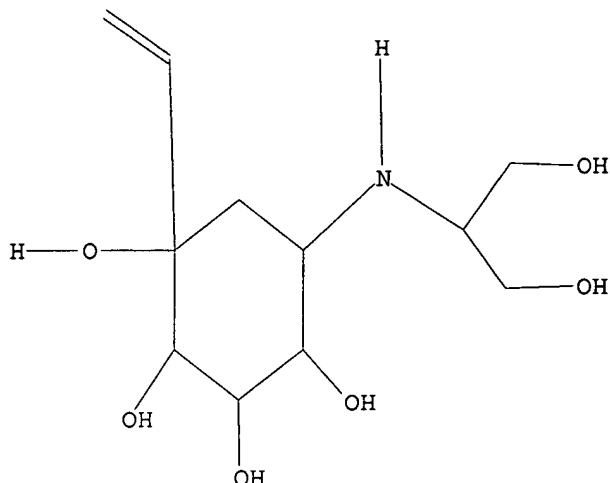
experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

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L7 STR



Structure attributes must be viewed using STN Express query preparation.

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FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
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PROJECTED ANSWERS: 0 TO 0

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0 ANSWERS

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L3                    6 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 14:55:04 ON 08 AUG 2006

L4                    158 S L3 AND VOGLIBOSE  
L5                    55 S L4 AND (METHOD OR PROCESS OR PRODUCTION OR SYNTHESIS OR MAKING)  
L6                    13 S L5 AND OXID?

FILE 'REGISTRY' ENTERED AT 15:01:47 ON 08 AUG 2006

L7                    STRUCTURE UPLOADED  
L8                    0 S L7 SSS SAM  
L9                    0 S L7 SSS FULL  
L10                   0 S L7 EXACT

=> s Shogaki Takeshi/AU  
L11 18 SHOGAKI TAKESHI/AU

=> s l11 and voglibose  
187 VOGLIBOSE  
L12 1 L11 AND VOGLIBOSE

=> dis l12 bib abs

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:777746 CAPLUS <<LOGINID::20060808>>  
DN 139:277115  
TI Process for preparation of voglibose  
IN Shogaki, Takeshi; Kakita, Takao; Yagi, Suguru  
PA Sawai Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003080561	A1	20031002	WO 2002-JP10687	20021015
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	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002344083	A1	20031008	AU 2002-344083	20021015
	US 2005165257	A1	20050728	US 2003-509059	20021015
PRAI	JP 2002-88321	A	20020327		
	WO 2002-JP10687	W	20021015		
OS	CASREACT 139:277115; MARPAT 139:277115				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention provides a process by which voglibose can be safely and easily prepared at a low cost; intermediates favorably usable in the process; and a process for preparation of the intermediates, specifically, inositol derivs. represented by the general formula (I) (wherein Prt is a hydroxyl-protecting group); a process for the preparation of the inositol derivs. which comprises dihydroxyaminating a cyclohexanone compound represented by the general formula (II) (wherein Prt is as defined above) with a dihydroxyaminating agent and a reducing agent; and a process for the preparation of voglibose represented by formula (III) which comprises oxidizing an inositol derivative of the general formula I and deblocking the resulting inositol compound Voglibose is an  $\alpha$ -glucosidase inhibitor and useful for the treatment of diabetes. Thus, a suspension of 2.0 g Me 6-deoxy-2,3,4-tri-O-benzyl- $\alpha$ -D-xylo-5-hexenopyranoside in a mixture of 60 mL dioxane and 30 mL H<sub>2</sub>O was heated in the presence of 39 mg PdCl<sub>2</sub> at 45° with stirring to give, after workup and crystallization from hexane, 72.4% [2S-(2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5.alp ha. $\beta$ )]-5-hydroxy-2,3,4-tris(benzyloxy)cyclohexanone (IV) which (4.33 g) was dissolved in 90 mL toluene, cooled to -78°, treated dropwise

with a THF solution of 1.0 M vinylmagnesium bromide (50 mL), stirred at -78° for 2 h and at room temperature for 1 h, and carefully treated with 100 mL 1 M aqueous HCl solution, to give after workup and silica gel chromatog., a mixture of 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-epi-inositol and 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-myo-inositol (V) in 65.8% yield. V (2.99 g) was dissolved in 15 mL DMSO and 5.43 mL Et3N, treated dropwise with a solution of 3.10 g sulfur trioxide-pyridine complex in 15 mL DMSO, stirred at room temperature for 1 h to give, after workup and silica gel chromatog., 83.7% II (Prt = benzyl) which (1.50 g) was stirred with 2-amino-1,3-propanediol in 25 mL dry MeOH at room temperature for 20 h, treated with 742 mg NaBH4 under ice-cooling, and stirred at room temperature for 16 h to give, after workup and silica gel chromatog., 72.6% III (Prt = benzyl) (VI). A solution of 700 mg VI in 30 mL CH2Cl2/MeOH (4/1) underwent ozonolysis at -78° for .apprx.4 h, treated with 198 mg NaBH4, stirred at room temperature for 1 h, and acidified to pH 4 by adding 1 M aqueous HCl solution to give, after silica gel chromatog., 85.5% I (Prt = benzyl) which (100 mg) was dissolve din 1.9 mL MeOH, successively treated with 0.1 mL 90% formic acid and 20 mg palladium black, stirred at 60° for 6 h, and suction-filtered to remove the catalyst followed by washing the catalyst with 3 mL MeOH/H2O (1/1). Evaporation of the combined solvent from the filtrate and the washing under reduced pressure, column chromatog. purification using Dowex 50WX8 and Amberlite CG-50, and crystallization from ethanol gave 65.0% III (voglibose).

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s Kakita Takao/AU  
L13 23 KAKITA TAKAO/AU

=> s l13 and voglibose  
187 VOGLIBOSE  
L14 2 L13 AND VOGLIBOSE

=> dis l14 1-2 bib abs

L14 ANSWER 1 OF 2 · CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:777746 CAPLUS <<LOGINID::20060808>>  
DN 139:277115  
TI Process for preparation of voglibose  
IN Shogaki, Takeshi; Kakita, Takao; Yagi, Suguru  
PA Sawai Pharmaceutical Co., Ltd., Japan  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003080561	A1	20031002	WO 2002-JP10687	20021015
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

AU 2002344083	A1	20031008	AU 2002-344083	20021015
US 2005165257	A1	20050728	US 2003-509059	20021015
PRAI JP 2002-88321	A	20020327		
WO 2002-JP10687	W	20021015		
OS CASREACT 139:277115; MARPAT 139:277115				
GI				

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AB The invention provides a process by which voglibose can be safely and easily prepared at a low cost; intermediates favorably usable in the process; and a process for preparation of the intermediates, specifically, inositol derivs. represented by the general formula (I) (wherein Prt is a hydroxyl-protecting group); a process for the preparation of the inositol derivs. which comprises dihydroxyaminating a cyclohexanone compound represented by the general formula (II) (wherein Prt is as defined above) with a dihydroxyaminating agent and a reducing agent; and a process for the preparation of voglibose represented by formula (III) which comprises oxidizing an inositol derivative of the general formula I and deblocking the resulting inositol compound. Voglibose is an  $\alpha$ -glucosidase inhibitor and useful for the treatment of diabetes. Thus, a suspension of 2.0 g Me 6-deoxy-2,3,4-tri-O-benzyl- $\alpha$ -D-xylo-5-hexenopyranoside in a mixture of 60 mL dioxane and 30 mL H<sub>2</sub>O was heated in the presence of 39 mg PdCl<sub>2</sub> at 45° with stirring to give, after workup and crystallization from hexane, 72.4% [2S-(2 $\alpha$ ,3 $\beta$ ,4 $\alpha$ ,5.alp ha. $\beta$ )]-5-hydroxy-2,3,4-tris(benzylloxy)cyclohexanone (IV) which (4.33 g) was dissolved in 90 mL toluene, cooled to -78°, treated dropwise with a THF solution of 1.0 M vinylmagnesium bromide (50 mL), stirred at -78° for 2 h and at room temperature for 1 h, and carefully treated with 100 mL 1 M aqueous HCl solution, to give after workup and silica gel chromatog., a mixture of 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-epi-inositol and 3-deoxy-2-C-ethenyl-1,5,6-tri-O-benzyl-D-myo-inositol (V) in 65.8% yield. V (2.99 g) was dissolved in 15 mL DMSO and 5.43 mL Et<sub>3</sub>N, treated dropwise with a solution of 3.10 g sulfur trioxide-pyridine complex in 15 mL DMSO, stirred at room temperature for 1 h to give, after workup and silica gel chromatog., 83.7% II (Prt = benzyl) which (1.50 g) was stirred with 2-amino-1,3-propanediol in 25 mL dry MeOH at room temperature for 20 h, treated with 742 mg NaBH<sub>4</sub> under ice-cooling, and stirred at room temperature for 16 h to give, after workup and silica gel chromatog., 72.6% III (Prt = benzyl) (VI). A solution of 700 mg VI in 30 mL CH<sub>2</sub>Cl<sub>2</sub>/MeOH (4/1) underwent ozonolysis at -78° for .apprx.4 h, treated with 198 mg NaBH<sub>4</sub>, stirred at room temperature for 1 h, and acidified to pH 4 by adding 1 M aqueous HCl solution to give, after silica gel chromatog., 85.5% I (Prt = benzyl) which (100 mg) was dissolve din 1.9 mL MeOH, successively treated with 0.1 mL 90% formic acid and 20 mg palladium black, stirred at 60° for 6 h, and suction-filtered to remove the catalyst followed by washing the catalyst with 3 mL MeOH/H<sub>2</sub>O (1/1). Evaporation of the combined solvent from the filtrate and the washing under reduced pressure, column chromatog. purification using Dowex 50WX8 and Amberlite CG-50, and crystallization from ethanol gave 65.0% III (voglibose).

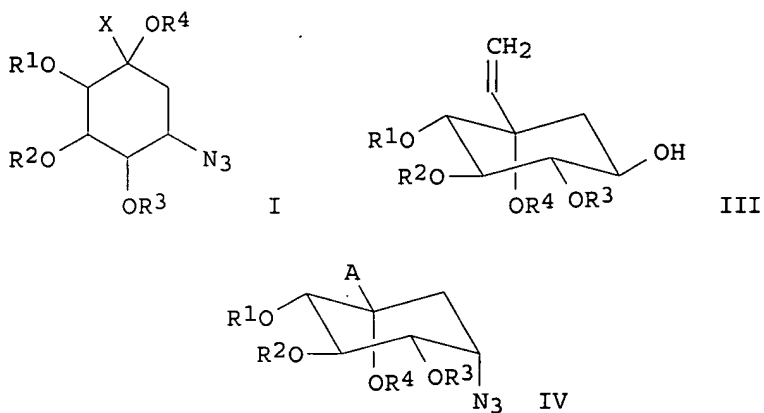
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2003:386729 CAPLUS <<LOGINID::20060808>>  
DN 138:402036  
TI Preparation of valiolamine and its intermediates



IN Masagaki, Takeshi; Yagi, Takashi; Kakita, Takao  
 PA Sawai Pharmaceutical Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003146957	A2	20030521	JP 2001-345259	20011109
PRAI	JP 2001-345259		20011109		
OS	MARPAT 138:402036				
GI					



AB Cyclohexane derivs. I (R1-R4 = H, protective group; X = CH:CH2, CH2OH), useful as intermediates for valioline (II), are claimed. Also claimed is a method for preparation of II by (1) azidation of alc. III (R1-R4 = H, protective group), (2) oxidation of the resulting IV (A = CH:CH2; R1-R4 = same as in III), and (3) reduction of the resulting IV (A = CH2OH; R1-R4 = same as above). Preparation of II from Me 6-deoxy-2,3,4-tris-O-(phenylmethyl)- $\alpha$ -D-xylo-5-hexenopyranoside with 5 steps was shown. Preparation of voglibose from II was also shown.

=> s Yagi Suguru/AU  
 L15 8 YAGI SUGURU/AU

=> s l15 and voglibose  
 187 VOGLIBOSE  
 L16 1 L15 AND VOGLIBOSE

=> dis l16 bib abs

L16 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2003:777746 CAPLUS <<LOGINID::20060808>>  
 DN 139:277115  
 TI Process for preparation of voglibose  
 IN Shogaki, Takeshi; Kakita, Takao; Yagi, Suguru  
 PA Sawai Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003080561	A1	20031002	WO 2002-JP10687	20021015
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2002344083	A1	20031008	AU 2002-344083	20021015
	US 2005165257	A1	20050728	US 2003-509059	20021015
PRAI	JP 2002-88321	A	20020327		
	WO 2002-JP10687	W	20021015		
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(100 mg) was dissolve in 1.9 mL MeOH, successively treated with 0.1 mL 90% formic acid and 20 mg palladium black, stirred at 60° for 6 h, and suction-filtered to remove the catalyst followed by washing the catalyst with 3 mL MeOH/H<sub>2</sub>O (1/1). Evaporation of the combined solvent from the filtrate and the washing under reduced pressure, column chromatog. purification using Dowex 50WX8 and Amberlite CG-50, and crystallization from ethanol

gave 65.0% III (voglibose).

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